

Greener skies: A consultation on the environmental taxation of aviation

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Foreword

Climate Change is one of the greatest challenges we face. As David Cameron has argued, and the Stern Report made clear, we need to take action now to reduce carbon emissions in order to mitigate the risk of disastrous consequences in the future. The fact that UK carbon emissions have risen since 1997 shows that Labour's approach is not working.

Environmental taxes, emissions trading and support for green technologies must all play a role in our efforts to halt climate change. I have said that the Conservative Party will rebalance the tax system away from jobs and families and towards pollution and carbon emissions – pay as you burn not pay as you earn. Any environmental taxes that we propose at the next election will be replacement taxes, with any extra revenues offset by equivalent reductions in other forms of taxation. I believe this is the best way to build public support for environmental taxation in order to tackle climate change and other environmental challenges.

Last November I launched a consultation on replacing the Climate Change Levy with a Carbon Levy that would provide the right incentives for businesses to invest in low-carbon energy sources. We have received a large number of imaginative and constructive responses from business groups, environmental organisations and academics, all of which will help to inform our design of the Carbon Levy. The aim of this document is to start a similar process of consultation on the taxation of aviation.

I do not agree with those who argue that we need to stop flying altogether if we are to tackle climate change. However, I believe the case for acting now to reduce the future growth in greenhouse gas emissions from aviation is compelling.

The current system of aviation taxation in the UK is fundamentally flawed. In particular, Air Passenger Duty is not directly linked to carbon emissions and provides no incentives for airlines to use more fuel-efficient aircraft. Even the Government admit that it is a “blunt instrument” that is “not designed for environmental ends”. Together with our Quality of Life policy group, I want to consult with the industry, with environmental groups, and with the public in order to create a sustainable regime of aviation taxation that has broad support.

This document sets out five principles that a reformed system of aviation taxation should satisfy:

1. The aim of any reform should be to reduce the overall growth in emissions from aviation.
2. International cooperation is of primary importance in addressing the environmental impact of aviation, but there remains a crucial role for national policies.
3. Any new environmental taxes should be replacement taxes, not additional taxes.
4. Any reforms should link tax incentives more closely to carbon content and provide better incentives for fuel efficiency.
5. Any reforms should ensure that the distributional impact is not regressive.

The document then sets out five questions on which we would like to consult:

1. What is the correct balance between international and national action to address the environmental impacts of aviation?
2. Is there an immediate case for charging fuel duty and/or VAT on domestic flights?
3. Is there a case for replacing APD with a per-flight tax based more closely on actual carbon emissions?
4. If some element of per-passenger taxation is maintained, is there a case for introducing some form of annual 'Green Air Miles Allowance' so that people who fly more frequently pay at a higher rate?
5. What other steps are needed in order to reduce the growth in aviation emissions?

We welcome submissions from all interested parties on the points raised in this consultation, and will take all views into account as we develop a Conservative environmental tax strategy.

George Osborne MP
Shadow Chancellor of the Exchequer

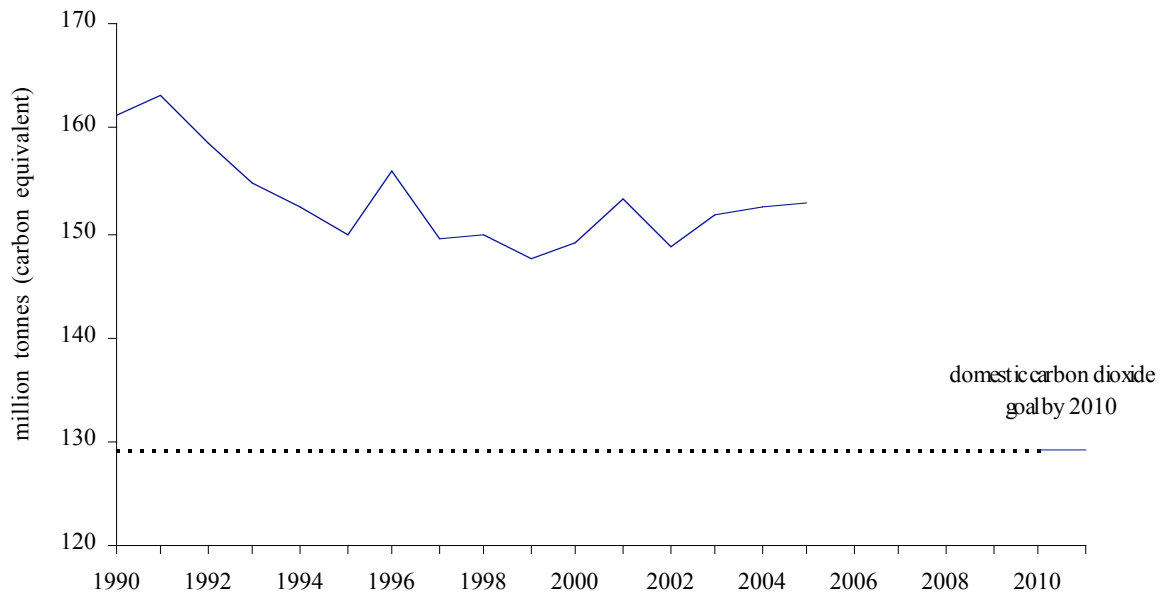
1 Introduction

- 1.1 Climate change is one of the greatest challenges we face. As the Stern Report made clear, it makes economic sense to take action now in order to mitigate the risk of disastrous climate change in the future. Unfortunately, the current policy framework for reducing carbon emissions in the UK is inefficient and failing to deliver the necessary results.

UK greenhouse gas emissions

- 1.2 The UK has three climate change targets: an international target under the Kyoto Protocol to cut a combined basket of greenhouse gases by 12.5% below 1990 levels by 2008-2012; a domestic target to cut carbon emissions by 20% by 2010; and a further domestic target to cut carbon emissions by 60% by 2050.
- 1.3 The UK met its Kyoto target in 1999, nine years ahead of schedule, largely as a result of the ‘dash to gas’ during the 1990s. As Figure 1 shows, between 1990 and 1997, UK CO₂ emissions dropped by over 6.3%.
- 1.4 However, the chart also shows that carbon emissions have risen since 1997. The result is that we will miss the domestic target of a 20% cut by 2010, as the Government admitted in March’s Climate Change Programme Review.
- 1.5 In addition, Figure 1 is based on the Government’s own data, which do not include rapidly growing emissions from international aviation. This is the focus of this consultation document.

Figure 1: UK carbon dioxide emissions, 1990-2010



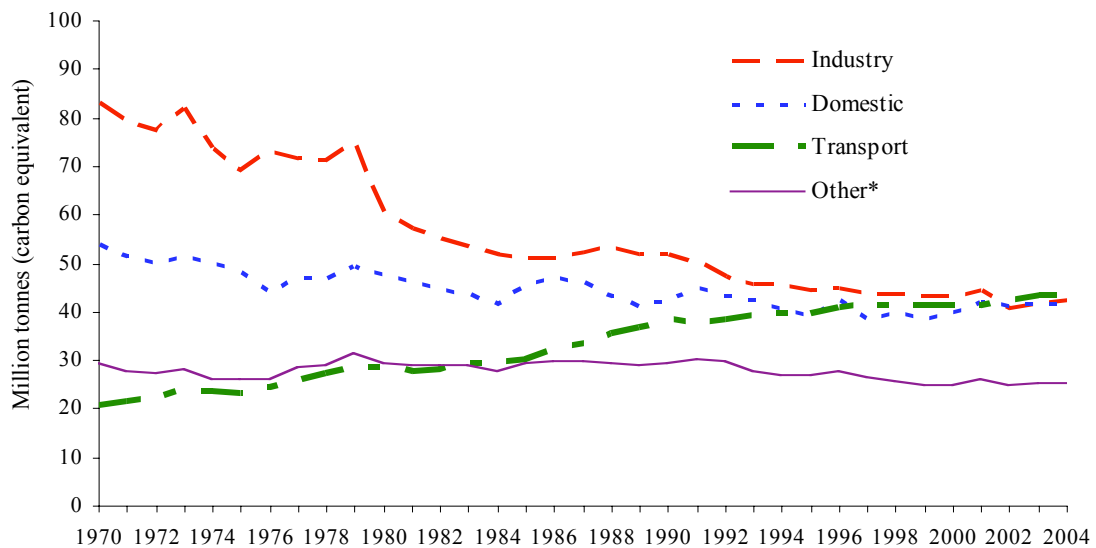
Note: Estimates for 2005 are provisional. Updated Aug 2006.

Source: Defra

- 1.6 Figure 2 breaks down total carbon dioxide emissions by end user. Transport is the only UK sector in which carbon emissions have risen consistently. Between 1990 and 2004, emissions from road transport increased by 10%, but emissions from international flights leaving the UK, which are not included in the figure, went up by 111%.
- 1.7 Emissions from all UK aviation (domestic flights and international departures) increased by over 90% between 1990 and 2004. Over the same period emissions from manufacturing fell by 28% and emissions from electricity, gas and water supply fell by 15%.¹

¹ Office for National Statistics (2006)

Figure 2: Carbon dioxide emissions by end user, 1970-2004



* Mainly commercial and public sectors

Source: Defra

Aviation's impact on the environment

- 1.8 Air travel is a uniquely greenhouse-gas-intensive mode of transport. Over a single journey of 1,500km, aircraft emit roughly twice as much greenhouse gas per passenger kilometre as cars or high speed rail. Shorter journeys produce even higher emissions per passenger kilometre. Over a distance of 500km, aircraft emit six times more greenhouse gas than high speed rail or cars, and 12 times more than a coach.²
- 1.9 However, international aviation is not currently included in national emissions inventories, and the UK government only counts domestic aviation towards its goal of reducing CO₂ emissions by 60% by 2050. Including domestic flights and international departures, aviation currently contributes 5.5% of the UK's CO₂ emissions³
- 1.10 Aviation's contribution to global climate change is often cited as 2-3%. However, this refers only to carbon dioxide. Evidence suggests that water vapour and nitrous oxides emitted at high altitude boost the greenhouse impact of aircraft by a factor of 2 to 4.⁴ The true contribution of aviation to climate change is thus estimated to be in the region of 4-9% and growing rapidly.

² CE Delft (2003)

³ Department for Transport (2004a)

⁴ IPCC (1999) and Royal Commission on Environmental Pollution (2002)

Projections of future growth in aviation

- 1.11 Air travel has increased five-fold over the last 30 years, and official Government projections suggest it will be between two and three times current levels by 2030.⁵ This is based on a 4% increase in passenger numbers every year, fuelled mainly by a 40% decrease in fares over the period.
- 1.12 There has also been strong growth in domestic flights, which in 2004 accounted for 13% of all passenger trips at UK airports, some 24 million flights. The most popular domestic routes from Heathrow include Leeds, Manchester, Newcastle and Edinburgh. Rail and other surface transport options offer a reasonable alternative to many domestic flights, and involve much lower emissions.
- 1.13 Air freight is growing even faster than passenger traffic, at a rate of around 7% per year.⁶ The volume of air freight handled by UK airports has increased from 1.7 million tonnes in 1995 to 2.4m tonnes in 2005.⁷ Government figures indicate that air freight accounted for 6.9% of UK aviation emissions in 2000, forecast to rise to 10% in 2030.⁸
- 1.14 The cross-party House of Commons Environmental Audit Committee (EAC) reports that under Department for Transport's (DfT's) 'best case' scenario, aviation will grow from around 5% of the UK's carbon emissions today to 24% in 2050, a figure the committee considers a "substantial understatement".⁹
- 1.15 The Tyndall Centre has estimated that with unconstrained growth, and taking account of its full environmental impact, aviation could account for more than 100% of the UK's carbon budget (65 MtC) by 2050.¹⁰
- 1.16 As the EAC concludes: "In other words, even under the government's own and most optimistic projections, every other sector of the economy would have to cut its share of UK emissions, while that of aviation would be assisted to almost quintuple. If the government continues in its policy of allowing just this one industry to grow, it will either cause severe pain to all other sectors or provoke so much opposition as to fatally undermine its 2050 target".¹¹
- 1.17 The Government plans to accommodate aviation growth from 180 million passengers per annum to 465 million by 2030, with new runways at Heathrow, Stansted, Edinburgh and Birmingham and other extensions throughout the UK.

⁵ Department for Transport (2003)

⁶ Institute for Public Policy Research (2003)

⁷ Civil Aviation Authority (2005a)

⁸ Department for Transport (2004b)

⁹ Environmental Audit Committee (2006)

¹⁰ Tyndall Centre (2005a)

¹¹ Environmental Audit Committee (2006)

Distributional and social aspects of aviation

- 1.18 Policies aimed at constraining rapid aviation growth are often characterised as being socially regressive by ‘pricing people off planes’ and penalising those who cannot currently afford air travel. However, the picture that emerges from an analysis of aviation demand suggests that additional capacity will mainly be taken up by wealthier frequent flyers, predominantly to short-haul destinations in the UK and Europe.
- 1.19 Evidence in this area is not conclusive, and the EAC has criticised the government for failing to address the distributional impact of forecast demand growth: “whether, for example, that almost everyone will make at least one air journey a year by 2030, or that those who currently do travel by air will do so far more frequently”.¹²
- 1.20 However, evidence on the current mix of passengers supports the conclusion that a tax on aviation would not be regressive. For example, about half of the population do not fly in any one year, 80% of flights are taken by those in the top half of the income distribution, and the average income of leisure flyers is almost double the national average.¹³
- 1.21 The British Social Attitudes survey showed that in 2003, over half of those in semi-routine or routine jobs had not flown in the previous year, while nearly half of those in higher managerial and professional jobs had flown three or more times.¹⁴ The Civil Aviation Authority concludes that “the wealthiest and most professional groups take a disproportionately large number of leisure trips abroad”.¹⁵
- 1.22 This is significant given that over half of all air trips arriving or departing UK airports are UK residents travelling for leisure. Of the rest, 14% are overseas residents for leisure, 22% are for business (including 5.4% within the UK) and 12% are international passengers making connecting flights.¹⁶ The growth in demand is also heavily concentrated in short-haul leisure flights taken by UK residents. As shown in Figure 3, between 1993 and 2004, 70% of the additional international trips that occurred were UK residents going abroad for leisure.¹⁷

¹² Environmental Audit Committee (2004)

¹³ Environmental Change Institute (2006)

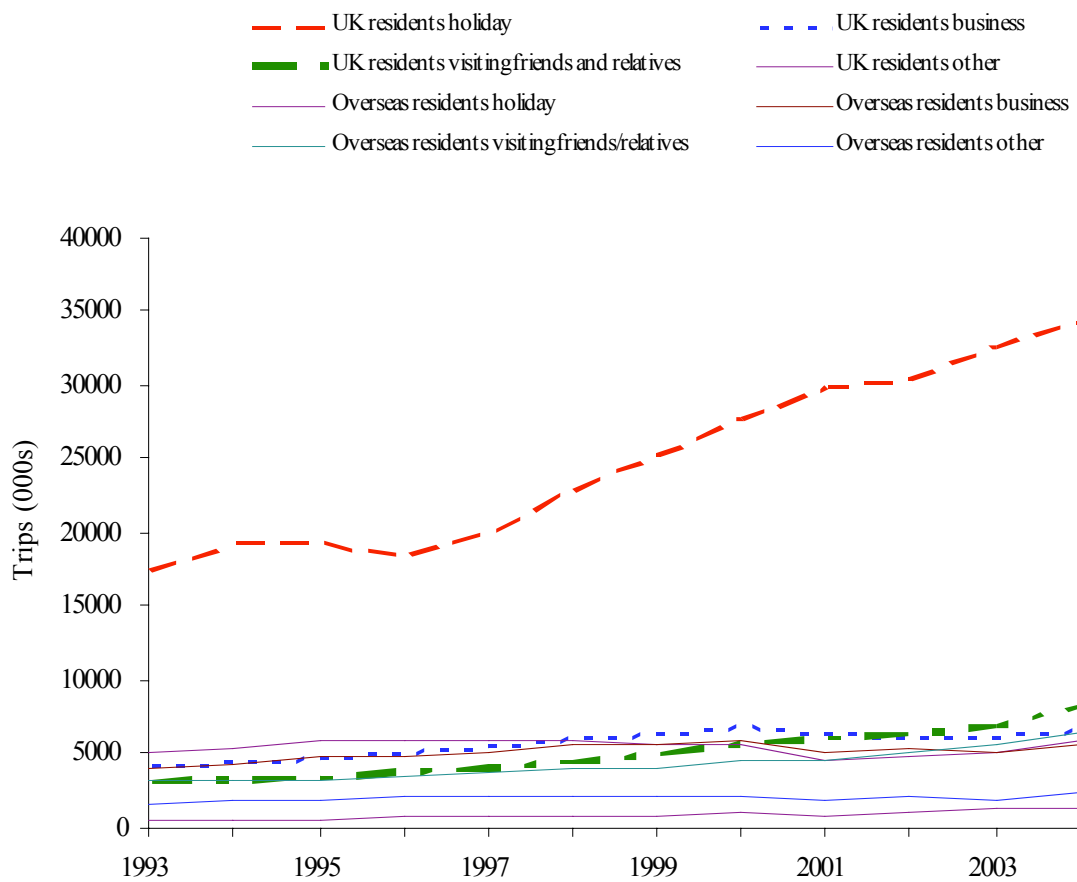
¹⁴ Cited in Environmental Change Institute (2006)

¹⁵ Civil Aviation Authority (2005b)

¹⁶ Environmental Change Institute (2006)

¹⁷ Environmental Change Institute (2006)

Figure 3: International passenger trips from UK airports, by purpose



Source: ONS. Based on Figure 3.3 from Cairns S and News on C (2006) 'Predict Decide'
Oxford Environmental Change Unit, University of Oxford

- 1.23 As a recent study by the Institute for Public Research (IPPR) concluded; “Leisure air travel remains highly skewed towards the better off... Any tax on aviation would be relatively progressive.”¹⁸
- 1.24 This conclusion is supported by analysis by the Institute for Fiscal Studies of the recent doubling in Air Passenger Duty. They predict that the tax increase will have a roughly equal negative impact across the income distribution as a percentage of income. In absolute terms the negative impact is predicted to be significantly larger on richer groups.¹⁹
- 1.25 Of course this conclusion is based on an analysis of who flies at the moment. One of the positive developments of recent years has been the democratisation of air travel, with an increasing proportion of the population able to afford holidays abroad. There is a danger that a significant increase in the cost of flights in the future might put air travel out of the reach of those on low incomes. If the opportunity to explore the world and experience other cultures is to be available to everyone in future generations, we need to find a policy approach whose side-effect is not to make air travel the preserve of the better off. One potential approach is discussed later on in Section 4.

¹⁸ Institute for Fiscal Studies (2006b)

¹⁹ Institute for Fiscal Studies (2006b)

2 Problems with the current system

- 2.1 Aviation is relatively lightly-taxed compared to other industries and private modes of transport, and proposals to include aviation within the EU Emissions Trading Scheme (EU ETS) are unlikely to completely correct for this.
- 2.2 As a result, current policy towards aviation does not reflect its true external environmental costs, and projected growth is significantly higher than levels that would be compatible with meeting domestic and international targets for reducing greenhouse gas emissions.
- 2.3 This section summarises the key deficiencies in the current framework of aviation taxation.

The current structure of aviation taxation in the UK

- 2.4 Aviation's preferential tax treatment stems from two main sources: the exemption of aircraft fuel from fuel duty and the absence of VAT on air tickets. On some estimates this reduces Treasury revenues by up to £9 billion per year.²⁰ The current arrangement dates back to a time when commercial aviation was in its infancy at the end of the Second World War, but the case for such exemptions is much weaker for a now mature industry.
- 2.5 The main tax on aviation in the UK is Air Passenger Duty (APD), introduced in 1994, which is now set to raise about £2 billion per year following the doubling in APD rates in the 2006 Pre-Budget Report. Problems with the design of APD are discussed further below.
- 2.6 Estimates of the price-sensitivity of demand for air travel vary, but a survey by the Institute for Fiscal Studies (IFS) concludes that "demand does appear quite sensitive to price, suggesting that there could be scope for using tax incentives to reduce demand for flights".²¹
- 2.7 In general, the IFS survey finds that price-sensitivity is close to the Government's estimate that a 10% increase in price reduces demand by 10%. However, this overall figure varies from only a 2.5% reduction in demand for long-haul business flights to up to a 15% reduction in demand for short-haul leisure flights. The existence of alternative means of transport is clearly an important factor in determining the price-sensitivity of demand for air travel.

²⁰ Aviation Environment Federation (2003)

²¹ Institute for Fiscal Studies (2006a)

Air Passenger Duty

- 2.8 APD is a tax levied on airlines based on the number of eligible passengers flying domestically or internationally from UK airports. The rates have varied over time as shown in Table 1, and in 2001 the Government introduced a different rate for economy class and higher classes. The 2001 reform reduced revenues from APD since most passengers pay the lower rate for economy travel within the EU. According to the IFS, average APD receipts per passenger fell from £13.40 just before the 2001 reform to £8.86 in 2005.²²
- 2.9 The doubling of APD rates from 1 February 2007 in the December 2006 Pre-Budget Report has attracted controversy due to the short notice and retrospective nature of the increase on passengers who had already booked their flights.
- 2.10 This controversy has refocused attention on more fundamental shortcomings in the design of APD. In particular as a per-passenger tax it is not directly linked to the carbon content of the flight. As a result it provides no incentives for airlines to use more fuel-efficient aircraft or to increase seat-occupancy rates. It also excludes the fast-growing air freight sector.
- 2.11 As the Institute for Fiscal Studies put it in their Pre-Budget Report analysis: “higher APD reduces passenger numbers – not necessarily flight numbers”.²³

Table 1: Rates of APD, 1994-2007

	EU rate		Non-EU rate	
1 November 1994	£5		£10	
1 November 1997	£10		£20	
	Economy	Higher	Economy	Higher
1 April 2001	£5	£10	£20	£40
1 February 2007	£10	£20	£40	£80

Note: EU rate payable for flight destinations in the UK, EU and EEA

²² Institute for Fiscal Studies (2006a)

²³ Institute for Fiscal Studies (2006b)

- 2.12 The blunt nature of APD is recognised by the Government. For example, John Healey MP, Financial Secretary to the Treasury, recently told the House of Commons Treasury Select Committee: “In its operation it is a blunt instrument as far as the environment goes... It is not even the best tax instrument actually to deal with the effects of aviation... In narrow terms it’s not specifically a tax that is designed for environmental ends.”²⁴
- 2.13 The Government’s 2003 Aviation White Paper made a similar point: “Because of its blunt nature, APD is not the ideal measure for tackling the environmental impacts of aviation.”
- 2.14 Together with the fact that the tax increase announced in the PBR was not offset by reductions in tax elsewhere, these deficiencies help to undermine public support for APD as an environmental tax and feed suspicions that it is simply designed to raise revenues for the Treasury.

Comparison with other countries

- 2.15 Duty on aircraft fuel and VAT on international flights are currently subject to a number of international agreements, as discussed in the next section. However, fuel for domestic flights is already taxed in countries such as the US, Japan, India and Norway. Within the EU only the Netherlands currently taxes fuel for domestic flights.²⁵
- 2.16 Most EU-15 countries already charge VAT on domestic tickets, and there is no legal barrier to doing so. EU states do not currently charge VAT on international or intra-EU air tickets. However, under the 6th VAT Directive this VAT exemption is an optional one. States are free to charge VAT on the portion of a flight taking place in domestic airspace. This would be difficult to calculate in practice, although the German government came close to implementing such a measure in 2004.²⁶

The European Emissions Trading Scheme

- 2.17 Aviation is currently expected to be included in the EU ETS from 2011. Initially, the scheme will cover only flights between EU member states. A year later, it will extend to all international flights to or from EU airports, but would exclude flights from countries that introduced emissions control measures equal to or more stringent than those of the EU ETS.²⁷
- 2.18 While the inclusion of aviation within the EU ETS is a welcome development, there are several reasons why this is not likely to be a sufficient solution.

²⁴ Treasury Select Committee (2007)

²⁵ CEC (2005a)

²⁶ Sewill (2005)

²⁷ ENDS (2007)

- 2.19 First, the European Commission itself admits that including aviation in the scheme will do little to constrain demand for air travel. It estimates that if airlines pass on all of the marginal costs of the scheme, ticket prices for return flights within the EU would only increase by between €1.8-9.0, while a long-haul flight to New York would cost an extra €8-20. What is more, if the carbon price remains low, expanding the EU ETS to aviation will knock just 0.1% off the projected growth in air travel.²⁸
- 2.20 Second, there are some concerns that with very limited auctioning of permits, airlines could make large windfall profits if they pass on costs to customers.²⁹
- 2.21 Third, the current proposals take no account of the indirect warming effects of aviation emissions, which increase their impact by between 2 and 4 times as discussed above. This means that the true environmental costs of aviation will continue to be under-reflected by the market even after aviation's inclusion in a well-functioning EU ETS.
- 2.22 Similar concerns have been expressed recently in a report by the House of Commons Environmental Audit Committee: "While we support the principle of including aviation in the EU ETS, this will only be effective if the terms of its inclusion are such as to constrain and ultimately reverse the rise in aviation emissions. However, we have severe doubts as to its effectiveness under current proposals."³⁰
- 2.23 The EAC Report goes on to conclude that the EU ETS will never be a sufficient solution: "However the terms of aviations inclusion in the Scheme are reformed and strengthened, complementary measures will be needed and must be introduced or intensified, aimed at constraining the growth in air travel and reflecting its full external costs, including all its non-CO2 contributions to global warming."

²⁸ ENDS (2007)

²⁹ ENDS (2007)

³⁰ Environmental Audit Committee (2007)

3 The importance of international cooperation

- 3.1 Since climate change is a global challenge, and due to the international nature of the aviation industry, international cooperation will be crucial if we are to successfully tackle the problem of rapidly growing emissions from aviation. This section discusses the main ways in which international action can make a difference, as well as its limitations.

The EU Emissions Trading Scheme

- 3.2 Emissions trading schemes provide one of the most promising frameworks for international action to tackle climate change. The EU ETS is the largest single scheme in operation and improving its operation and scope should be a priority for environmental policy. The first phase of the scheme has suffered from a low and fluctuating carbon price and insufficient auctioning of permits, so current decisions over National Allocation Plans for the second phase will be crucial in determining whether it can provide the stable long-term incentives that are needed.
- 3.3 Aviation's proposed inclusion in the third phase of the EU ETS was discussed in the previous section. The precise details of how this proposal is implemented will determine whether it is successful in reducing the growth in emissions from aviation. Specific issues raised by the House of Commons Environmental Audit Committee and others include the extent to which aviation allocations are auctioned, the impact of aviation on the overall carbon price, and the level of the cap set for aviation emissions. Engaging at a European level on these issues should be a key policy priority.
- 3.4 However, as discussed in the previous section, the inclusion of aviation in the EU ETS is still some years off and will not on its own be a sufficient solution to the problem of aviation emissions.

Duty on aviation fuel

- 3.5 Duty on aviation fuel has the key advantage that it relates directly to emissions, in contrast to VAT or APD. This means that it would be a more environmentally effective green tax. However, with the exception of fuel for domestic flights, action on the taxation of aviation fuel will require international cooperation and will inevitably take time to implement.
- 3.6 Aviation fuel is exempt from tax under the 1944 Convention on International Civil Aviation (the 'Chicago Convention'). The convention itself only prohibits the taxation of fuel already on board aircraft arriving in a country, but tax exemption on fuel for international flights has been legally established in numerous bilateral Air Service Agreements. ASAs between EU states have been superseded by EU Community Law since 1993, and the 2003 Directive on Taxation of Energy Products enables member states to introduce fuel tax for domestic flights.

- 3.7 A fuel tax on intra-EU and domestic flights would have to exclude non-EU carriers due to legally binding Air Service Agreements (ASAs), although Non-EU carriers only use 3% of fuel used on intra-EU flights.³¹ The EU is currently in the process of a comprehensive renegotiation of bilateral agreements with non-EU states, and over 200 ASAs have already been amended to allow the taxation of fuel supplied to EU and non-EU carriers on an equal basis.³²
- 3.8 While duty on international aviation fuel may one day provide part of the solution to aviation emissions, there is clearly a case for domestic action in the short term.

Technological and operational innovations

- 3.9 We welcome attempts by the airline industry to reduce carbon emissions, such as Richard Branson's pledge to invest £1.6 billion in technologies to reduce climate change, led by lower carbon aviation fuels.
- 3.10 However, the evidence suggests that the technological potential for developing significantly more efficient aircraft or cleaner aviation fuels is limited in the short-term.³³ The Advisory Council for Aeronautics Research in Europe has set an objective of cutting CO₂ emissions by 50% by 2020, but admits that this will not be achieved without breakthrough technologies.³⁴ In reality, the history of innovation in aircraft design is one of incremental improvement not radical innovation, mainly due to the high costs and high risks involved. Tax incentives for greater efficiency may help to accelerate this process, and would also provide incentives for airlines to switch to more efficient existing aircraft.
- 3.11 In the short term, improvements in operations management offer the greatest potential for immediate gains. Options include the reform of air traffic control to reduce queuing and holding, continuous descent procedures, towing aircraft to the runway, and in-flight refuelling. For example, the UN IPCC estimates that there is a 12% inefficiency in air traffic management globally, adding up to 73 million tonnes of wasted CO₂ emissions per year.³⁵ International cooperation to encourage aviation operators and regulators to deliver these carbon savings should be a policy priority.

³¹ European Federation for Transport & Environment (2006)

³² CEC (2005b)

³³ Royal Commission on Environmental Pollution (2002)

³⁴ Advisory Council for Aeronautics Research in Europe (2004)

³⁵ International Air Transport Association (2007)

A role for national policies

- 3.12 Due to concerns over the limitations of including aviation in the EU ETS, the urgent need for action, and the limited potential for technological and operational innovations, there is clearly a role for national policies to act alongside international cooperation. As a significant aviation hub there is potentially scope for the UK to show global leadership in addressing the environmental consequences of aviation.
- 3.13 One argument often raised against national action on international aviation is that it will simply divert international flights to other hubs, damaging the UK's economy without having a significant impact on carbon emissions. While the design of any policies must clearly take this possibility into account, the potential scale of any such effects is not clear.
- 3.14 For example, transfers made between two connecting flights are probably the flight category most vulnerable to national action, but only about 12% of passengers at UK airports are making connecting flights. It is not clear whether a serious attempt to address the environmental consequences of aviation should be prevented simply in order to protect the economic contribution of a small number of passengers who do not even leave the airport.

4 Principles underlying reform

4.1 We believe that a reformed system should conform to the following principles.

The aim of any reform should be to reduce the overall growth in emissions from aviation

4.2 The evidence presented in Section 2 strongly suggests that we will be unable to meet our national and international targets for reducing greenhouse gas emissions unless we are able to reduce the predicted growth in emissions from aviation. One of the aims of this consultation is to determine the role that environmental taxation should play in achieving this role. Any reforms to environmental taxation will have to operate alongside other measures, including policy on aviation infrastructure, emissions trading, and the provision of better alternative modes of travel.

International cooperation is of primary importance in addressing the environmental impact of aviation, but there remains a crucial role for national policies

4.3 As discussed in the previous section, the reform of international agreements will be necessary for significant changes to the taxation of aircraft fuel. International cooperation is also fundamental to ensuring the successful inclusion of aviation within the EU ETS.

4.4 However, many of these developments will take time, so there is a crucial role for domestic policies to address the immediate impact of rapid growth in aviation on the environment. This includes policies on taxation, aviation infrastructure and the provision of alternative means of transport.

4.5 Without urgent action to reduce the rapid growth of emissions from aviation, there is a danger that aviation-intensive lifestyles and travel patterns could become harder to change in future. And as a significant aviation hub, there is potentially scope for the UK to show global leadership in addressing the environmental consequences of aviation.

4.6 While international action on aviation taxation is still likely to be some years off, there are no legal barriers to the introduction of fuel duty or VAT on domestic flights. Fuel for domestic flights is already taxed in countries such as the US, Japan, India, Norway and the Netherlands, and most EU-15 countries already charge VAT on domestic tickets. As discussed in the next section, we welcome submissions on whether there is an immediate case for charging aviation fuel duty and/or VAT on domestic flights.

Any new environmental taxes should be replacement taxes, not additional taxes

- 4.7 We expect that any reform of environmental taxation on aviation will result in additional revenues for the Government if it is to be effective.
- 4.8 However, public support for additional environmental taxes on aviation is likely to be undermined by any suggestion that they are simply a means of increasing total tax revenues. This is clearly demonstrated by the recent controversy over APD. As well as the flawed design of APD, the fact that the increase was not matched by any reductions in tax elsewhere simply reinforced the perception that the Chancellor was more interested in raising revenues than changing behaviour. The episode has undoubtedly damaged the public case for environmental taxation to tackle climate change.
- 4.9 We have pledged that any additional revenues from environmental taxes that we propose at the next election will be offset by equivalent reductions in other forms of taxation.

Any reforms should link tax incentives more closely to carbon content and provide better incentives for fuel efficiency

- 4.10 A general principle for the design of environmental taxes is that the incentives provided by the tax should be linked as closely as possible to the form of pollution in question. As discussed above, APD does not conform to this principle since it is charged per passenger and not in proportion to the environmental damage from carbon emissions.
- 4.11 A number of commentators and researchers have suggested that APD should be replaced with a per-flight tax levied on airlines that is more directly related to carbon emissions.³⁶ This would address many of the deficiencies of APD discussed in Section 2 above and would provide airlines with incentives to invest in more fuel efficient aircraft.
- 4.12 A key consideration in the design of such a tax is whether it would be compatible with international agreements on the taxation of fuel. This is one of the questions listed in the next section on which we welcome contributions from all interested parties.

³⁶ See for example CE Delft (2002)

Any reforms to aviation taxation should ensure that the distributional impact is not regressive

- 4.13 The evidence presented in Section 1 strongly suggests that any increase in aviation taxation would not be regressive overall. However, one of the positive developments of recent years has been the democratisation of air travel, with an increasing proportion of the population able to afford holidays abroad. There is a danger that a significant increase in the cost of flights in the future might put air travel out of the reach of those on low incomes. If the opportunity to explore the world and experience other cultures is to be available to everyone in future generations, we need to find a policy approach whose side-effect is not to make air travel the preserve of the better off.
- 4.14 One potential policy that could address these concerns would be to introduce an annual ‘Green Air Miles Allowance’ so that people who flew more often were taxed at a higher rate. This allowance could be related to the number of miles flown, or to the number of flights taken. For example, everyone could be entitled to one short-haul return flight per year at the standard rate of tax, but additional flights would be charged at a higher rate.
- 4.15 This policy applies some of the insights from the idea of ‘Personal Carbon Allowances’ (or ‘Domestic Tradeable Quotas’), whereby individuals would have a personal allocation of carbon emissions above which they would have to buy additional credits.³⁷ However, even the most enthusiastic supporters of PCAs admit that any possibility of their widespread implementation is likely to be many years in the future. Any large scale system would require a huge investment in IT and infrastructure, and there would also be significant implications for civil liberties.
- 4.16 Aviation is one area of the economy where extensive systems for passenger identification and the collection of passenger information already exist, partly for security reasons. This raises the possibility that a limited ‘Green Air Miles Allowance’ system could be implemented without the need for expensive and untested additional infrastructure. In addition, the system would be significantly less complex than a system of PCAs, since there is no need for a tradeable element – only a higher rate of tax above a certain threshold.
- 4.17 It would clearly not be possible or desirable to implement such an innovative policy idea without extensive consultation. As explained in the next section, we welcome submissions on whether such a policy could be implemented in practice without imposing undue complexity and administrative costs.

³⁷ For a discussion see Tyndall Centre (2005b)

5 Questions for consultation

5.1 As part of its ongoing work, our Quality of Life policy group has reviewed international best practice and consulted widely upon policies to moderate emissions growth from aviation while recognising its economic and social role. The purpose of this consultation document is to raise some specific questions as detailed below. We welcome submissions from industry, academics, environmental organisations and other interested groups on the following questions.

Q1 What is the correct balance between international and national action to address the environmental impacts of aviation?

5.2 For example, what are the limitations of including aviation within the EU ETS? What should be the UK's priorities for changing the international taxation of aviation? In the meantime, what national policies can have the most effect on reducing emissions from aviation without unduly damaging economic competitiveness or simply diverting flights away from the UK?

Q2 Is there an immediate case for charging fuel duty and/or VAT on domestic flights?

5.3 As discussed above, several countries already charge duty on fuel for domestic flights, and most EU-15 countries already charge VAT on domestic tickets. If there is a case for introducing fuel duty on domestic flights, at what rate should it be levied? Should such a tax apply to all flights within the UK?

Q3 Is there a case for replacing APD with a per-flight tax based more closely on actual carbon emissions?

5.4 What practical considerations would have to be taken into account in the design of such a tax? What characteristics would such a tax need to have in order to meet the requirements of existing international agreements? At what rate should such a tax be levied?

Q4 If some element of per-passenger taxation is maintained, is there a case for introducing some form of annual 'Green Air Miles Allowance' so that people who fly more frequently pay at a higher rate?

5.5 Would such a tax address public concerns over the distributional effects of aviation taxation? Would such a tax be practically feasible without imposing too high an administrative burden on airlines or passengers? Would it be possible to combine such a tax with incentives that were more closely aligned with actual carbon emissions?

Q5 What other steps are needed in order to reduce the growth in aviation emissions?

5.6 How should environmental taxation interact with other policies such as emissions trading, public transport and support for new technologies?

6 Timing and next steps

- 6.1 The closing date for responses to this consultation is Monday 11 June 2007.
- 6.2 Responses should be sent to:
- Greener Skies Consultation
- Office of the Shadow Chancellor, George Osborne MP
- House of Commons
- London
- SW1A 0AA
- 6.3 Or by email to contact@georgeosborne.co.uk Please include the words 'Greener Skies Consultation' in the subject.
- 6.4 Responses to this consultation will be used to inform our policy review process.

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