

Using Economic Instruments

BATA Response to the Government's Discussion Paper "Aviation and the Environment – Using Economic Instruments".

Questions raised in the paper are in italics.

General Comments

We find that the Government's policy objective "that the industry should pay for its environmental costs" (paragraph 2.2), to be misguided. We would expect it to be "that aviation is sustainable" or some objective more directly related to reducing environmental impacts. Paying for environmental costs is one way, but not the only way, in which such an objective might be achieved. The Government must also take into account the wider economic and social benefits that aviation brings. Using economic instruments to manage demand will have detrimental impacts far beyond those on the aviation industry itself.

The existing economic instrument, APD, is not mentioned at all.

Global Warming

Taking the costs in the paper at face value it is clear that global warming is the dominant issue. The costs are estimated at £1.4B in 2000 rising to £4.8B in 2030 based on:

- £70 per tonne of carbon in 2000 and rising at £1 per tonne per year thereafter.
- A radiative forcing index of 2.7 in cruise.
- All fuel consumption on domestic flights and 50% of consumption on international flights.
- Surface access is included which adds about 2.5% to emissions.

The estimates in the previous DETR paper "Valuing the External Costs of Aviation" December 2000, used \$80 per tonne of carbon with no escalation. The results were presented as unit costs per passenger or per flight and are difficult to compare directly with the new paper. However, the new estimate of £1.4B in 2000 would seem to be some 60-70% higher due almost entirely to the higher cost of carbon assumed. The derivation of the estimated cost of £70 per tonne is unclear and does not appear to take into account market forces. We question the validity of this figure. For example, the CE Delft study, mentioned in the report, quotes Eyre et al at a discount rate of 3% giving a marginal cost of CO₂ emissions between 2000 and 2010 of \$20 per tonne of CO₂, and \$104 per tonne for 0% discount, with both reducing to less than half when equity weighting is included. The values of Eyre et al are at the high end of those quoted in the Delft study.

The radiative forcing index of 2.7 in cruise also has a large margin of uncertainty.

The assumptions for the future are very conservative (i.e. the emissions and costs are too high). Demand is unconstrained and there is no allowance for improvements in aircraft or engine technology.

What economic instruments could be used to tackle climate change? Which of these would be most desirable in terms of:

- *Providing the best incentives for the aviation industry to take account of its environmental impact?*
- *Administrative feasibility?*
- *Minimising undesirable economic impacts?*

In the interests of long term sustainability the objective should be to bring pollution down to a certain level. With taxation, the costs are known but the environmental benefits are not clear. With emissions trading the opposite is true: the environmental benefits are transparent but the costs are unknown because they will depend on the market. Taxes are blunt and uncertain instruments for achieving environmental goals. An administrative advantage of trading is that there is no need to set an emissions price.

It is not necessary to apply economic instruments equally to all sectors nor is it necessary that all sectors should separately meet emissions reduction targets. For example, it may prove more economically efficient to reduce carbon dioxide in sectors other than aviation, especially bearing in mind that there is no viable alternative fuel for aircraft within the foreseeable future. In this case aviation would bear the transfer costs.

For these reasons we believe that open international emissions trading is the best approach. We recognise that this will take some time to set up therefore in the interim there could be a voluntary agreement to:

- Record and publish fuel consumption data for all flights from an agreed date, and
- Reduce specific fuel consumption to an agreed level by an agreed date.

Carbon offsets might also be used as an alternative to the above.

Should there be a priority to reduce one particular aspect of aviation's contribution to climate change, such as CO₂ emissions, or should a broad approach be adopted to tackle other contributions as well, such as NO_x and contrail formation?

The focus should be on CO₂, at least initially, because it has the best understood impact. A voluntary agreement to maintain progress on reducing NO_x could be introduced until the impacts are better understood and a mechanism introduced to allow trading in NO_x. The level of uncertainty on the impact of contrails appears to be so great that no specific action should be taken yet. In any event, action to improve fuel efficiency will tend to reduce contrails.

Emissions from domestic aviation are currently included within national targets agreed under the Kyoto Protocol, but emissions from international aviation are subject to separate commitments under the auspices of ICAO. The second Kyoto commitment period will run from 2012. What would be the advantages and disadvantages in including international aviation in national totals for this commitment period?

The advantage is that it would remove an anomaly and we would therefore support the inclusion of international aviation in national totals. However all countries must be included to avoid competitive distortions.

What measures could be introduced to encourage airlines to purchase assets which are less environmentally damaging?

Better capital allowances.

What other measures might be effective in tackling climate change?

Expand airspace capacity especially in Europe. Airspace congestion is an internal cost but there is a potential saving of 6% in fuel consumption to be gained.

Would it be preferable to aim for long-term international agreement, which would have the greatest environmental benefits; or should domestic measures be pursued in the short term, even if they may have more limited impact and have other effects on, for example, competitiveness? Would action at EU level be preferable?

International agreement must be the aim. We would oppose unilateral UK action. Action at EU level is more acceptable provided it is targeted at all flights within, and to and from, the EU and not just at EU-based airlines. Even in this case, non-EU airlines will have a competitive advantage because a smaller proportion of their flights would be affected.

Local Air Quality

EU limits come onto force for NO₂, in 2010, and PM₁₀, in 2005/2010. The SERAS consultation document states that exceedence at LHR is a possibility. However the contribution by aircraft has been greatly exaggerated.

What economic instruments could be used to tackle impacts on local air quality and noise? Which of these would be most desirable in terms of:

- *Providing the best incentives for the aviation industry to take account of its environmental impact?*
- *Administrative feasibility?*
- *Minimising undesirable economic impacts?*

Economic instruments are not appropriate. This is a regulated issue and costs will be incurred to meet the health limits. If the limits cannot be met, the industry will be constrained. Provided the legal limits are met, no further costs should be imposed.

- *Should economic instruments be varied by emissions, or by noise, or both?*
- *On which types of emission would it make most sense to base economic instruments?*

The questions are irrelevant given that we hold that economic instruments are not appropriate in dealing with local air quality issues.

- *Should economic instruments based on local environmental impacts be varied by aircraft or by airport/location? Is there a role for economic instruments to help meet mandatory EU limits for NO₂ and PM₁₀?*

No. The possibility of reducing capacity to keep within the limits is threat enough.

- *Should economic instruments be based on estimates of external costs?*

The question is irrelevant given that we hold that economic instruments are not appropriate in dealing with local air quality issues.

Noise

There are fundamental differences in the nature of the impact of noise; it is local and, while it does have a direct impact on people close to airports, it is largely a nuisance rather than a cause of direct environmental damage. As such it should be treated separately with careful consideration of trade-offs between noise and emissions.

There should be distinction between “new” and “old” noise. If there is a relationship between increased noise and decreased property value, there should be a similar relationship between the reduction of noise and increased property value. The impact will be taken into account for “old” noise at the time of purchase. The impact of noise has decreased for many properties in the Heathrow area over the last 25 years (a reduction of around 80% in those living within the 57 Leq contour).

Those who are brought into the aircraft noise impact area as a result of aviation development should be entitled to fair and proportionate mitigation such as sound insulation and, at higher noise levels, assistance with moving. This should apply also, in an appropriate way, to those who have seen a net increase over the long term. It is not clear whether these aspects have been taken into account in calculating the net cost of noise.

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Economic instruments are not appropriate (except as a result of new infrastructure developments as described above). Noise impacts should be controlled by noise contour area limits or by limiting the number households affected.

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- *On which types of emission would it make most sense to base economic instruments?*
- *Should economic instruments based on local environmental impacts be varied by aircraft or by airport/location?*
- *Should economic instruments be based on estimates of external costs?*

The questions are irrelevant given that we hold that economic instruments are not appropriate in dealing with noise issues. Current noise regulation already has an economic impact on aviation.

Congestion

Airspace congestion costs are internal but this should not be used as an excuse not to tackle the problem. Progress within Europe is constrained by political issues and military demands.

The paper states that external costs are imposed on other road users by surface access congestion near airports but the reverse is also true. Other road users impose costs on airport users. Any congestion measures should apply to all road users.

The paper suggests that the current slot system does not guarantee efficient use of airport capacity. It is unlikely that any slot system could make such a guarantee. This issue raises the question of what is meant by efficient use of airport capacity. It is clear from responses to the RASCO consultation that regional airports and RDAs put a high value on connections to London and to Heathrow in particular – higher than an airline would with a range of potential international services to develop.

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