



## Airport Expansion - Discussion Paper

November 2007

### Introduction

Demand for travel from London's airports continues to grow. BAA have applied for permission for a 2<sup>nd</sup> runway at Stansted and the Government will shortly be consulting on proposals for a 3rd runway and increased use of existing runways at Heathrow. Without increased capacity, congestion will get worse and London's competitiveness will be put at risk. At the same time, opposition to increasing capacity is growing, on grounds of climate change and the impact at local level. Policy on airport expansion is increasingly becoming a party political issue.

How do we square this circle? Air travel and therefore airport expansion incur an environmental cost, both local and global, which must be confronted. As a leading world city, London would like the UK to help lead action to find the most economic and efficient means of accounting for this environmental cost through an effective combination of market, taxation and regulatory instruments. The various options for reducing the environmental impact of airport expansion and air travel include:

- Emissions trading
- Pricing the externalities into the individual ticket price
- Mitigating the local environmental impact of airport expansion

### Menu of possible options

- I. Inclusion of aviation by 2012 in a stringent EU Emissions Trading Scheme that covers all departing and arriving flights, accounts for the high-altitude impact of aircraft emissions, and auctions all allowances
- II. A restructured Air Passenger Duty that as accurately as possible reflects the environmental impact of flying, takes account of fuel per seat consumed based on length of trip and aircraft type, and is hypothecated for environmental mitigation measures
- III. An adjustment to airport charges for departures to include the NOx emissions rating of aircraft (as currently applied to airport landing charges)
- IV. Air Traffic Management and cruise altitude regulation that allow for the flexible avoidance of condensation trails
- V. 'Carbon neutral' operations at Heathrow to account for ground emissions from planes, airside vehicles, aircraft auxiliary units and buildings' emissions, including Heathrow Express
- VI. Delivery of more sustainable forms of travel including Crossrail, Airtrack, as well as new road pricing schemes for landside and private vehicles at Heathrow, Gatwick and Stansted that generate net revenues to fund offsetting measures

### Background

#### Maximising competitiveness - airport policy needs to allow for increasing business travel

1. The strength of London's economy depends on its success as a world city. Foreign-owned companies are responsible for 14% of employment. Senior executives in multi-national companies rate easy access to markets, customers and clients as the most important factor affecting business location decisions<sup>1</sup>. Airport policy needs to allow for increasing international business travel to support London's function as a, if not the, world city.

*86% of London First members surveyed believe air accessibility is vital to maintaining London's competitiveness*

2. Fifteen per cent of the world's international flights involve a UK airport<sup>2</sup>. Around 228 million passengers pass through UK airports a year. 133 million do so through London area airports<sup>3</sup>. Mid-range estimates from the Department for Transport (DfT) suggest the number of total passengers at UK airports will more than double to 465 million by 2030<sup>4</sup>. Over half of the UK demand will be for airports in London. Business travel currently represents a quarter of travel from London's airports, with a particular focus on Heathrow where it now represents 35%. Even with video conferencing, business travel is likely to increase. While overall the proportion of those flying to/from the UK for leisure is predicted to fall from 47% in 2005 to 45% in 2020, for business it is expected to grow, from 15% to 19%<sup>5</sup>.

#### There is no logic to singling out air travel for environmental taxes

3. But concern about environmental issues, and air travel in particular, have been gaining popular momentum. Emissions from air travel account for 7% of the UK's CO2 emissions and are predicted to roughly double in the next 30 years. Between 1990 and 2004, while emissions from manufacturing dropped 28% and emissions from electricity, gas and water supply fell 15%<sup>6</sup>, emissions from aviation grew by 90%, and by the government's figures they will account for more than a quarter of the UK's total carbon budget by 2050 should the UK meet its overall target reduction of 60%.

4. In the same way as emissions trading achieves a free market balance across countries and sectors, it is appropriate that environmental taxes should be levied across all sources of CO2 - heating, energy, other transport, not just air travel - enabling the individual to make judgments about where to make savings. Government should tax emissions from all sources at the same time as reducing other taxes, particularly those which affect competitiveness.

*95% believe other sources of emissions should be tackled in parallel to targeting aviation*

#### The ability to meet the increase in demand at airports is constrained

5. Terminal 5 will ease the current congestion at Heathrow's terminals, but the ability to meet future growth in demand is constrained by runway capacity. Heathrow's two runways are operating at 98% capacity<sup>7</sup> leading to inefficient stacking and delays. Lack of runway capacity is also creating fierce competition for slots at Heathrow in particular, where, in addition, a long haul network competes with a domestic short haul network. At the same time, very low cost flights are available at other London airports, suggesting a

<sup>1</sup> European Cities Monitor: Cushman and Wakefield

<sup>2</sup> ICAO data and CAA data, 2004

<sup>3</sup> Heathrow, Gatwick, London City, Stansted, Luton - CAA Passenger Survey Report, 2005

<sup>4</sup> With a 2<sup>nd</sup> runway at Stansted and 3<sup>rd</sup> runway at Heathrow

<sup>5</sup> DfT (DETR) 2000 forecasts by category (million passengers pa)

<sup>6</sup> National Statistics (2006) Environmental Accounts, Spring 2006

<sup>7</sup> Current flights as proportion of 2010 capacity

complex dynamic in the economics of flying. London airports do not compete with each other but with their continental rivals. The current European passenger volume comparison with Heathrow is laid out below:

	2006 Passengers (millions)	Destinations (2001)	Runways	
Heathrow (London)	68	189	2	
Frankfurt Intl	53	292	3	One of Frankfurt's runways is used for departures only
Charles de Gaulle (Paris)	57	250	4	
Schipol (Amsterdam)	47	238	5	Not all of Amsterdam's runways are used at any one time due to environmental considerations

### There is current National Government support for expanding London's airports

6. A consultation on a 3<sup>rd</sup> runway at Heathrow is launched this November (with an early runway operational date of 2020). Proposals for a 2<sup>nd</sup> runway at Stansted are to be submitted for planning permission later this year (with the earliest operational date of 2015). The Government has ruled out a further runway at Gatwick before 2019. London City Airport has plans to quadruple passengers numbers by 2030 without a new runway, to 8 million a year. The Mayor, on the other hand, is resistant to expansion of Heathrow which lies within his border on the grounds of two environmental issues - local impact and global impact. Moreover, the planning process for national infrastructure remains slow and expensive, too often impeding the timely delivery of much needed capacity. Even at the most optimistic pace of expansion, it is highly unlikely that airports will expand at a rate to match unfettered demand.

### Cost-benefit

7. Oxford Economic Forecasting estimates the aviation industry directly contributed £11.4 billion to UK GDP in 2004 and employed 186,000 people. The Eddington Report estimates the Net Present Value of additional capacity at Heathrow and Stansted at £24bn to 2060<sup>8</sup>.

*72% of London First members surveyed believe environmental conditions are necessary for Heathrow to be expanded*

8. The DfT has estimated the aviation sector's climate change (carbon) costs in 2005 to be around £1.6 billion. The UK Government estimates the social cost of carbon emissions at £70/tC, with a sensitivity range of £35/tC to £140/tC<sup>9</sup>. Recent reports by Stern<sup>10</sup> and Eddington argue that restraining capacity is an ineffective way of reducing the environmental cost of carbon-intensive activity. Stringent but achievable local impact conditions should be imposed through the local planning regime, whereas global warming should be addressed through national and international instruments.

*Of those who support environmental conditions, 93% call for improved public transport access*

9. Given that there is no practical alternative to long haul flights and many short haul flights, this note argues that we are facing capacity constraint for the foreseeable future and should be more proactive about managing demand in such a way as to maximise competitiveness and minimise environmental impact.

<sup>8</sup> The Eddington Transport Study, DfT, December 2006

<sup>9</sup> For emissions in 2000, the estimate rising by £1 for each subsequent year - "Estimating the Social Cost of Carbon" HM Treasury, DEFRA, 2002

<sup>10</sup> Stern Review: The Economics of Climate Change (February 2007)

**Emissions trading provides a free market solution**

10. The EU Emissions Trading Scheme risks being too little too late. Individual country targets may well be generous and it is likely that airlines and countries will be able to buy their way out relatively cheaply. However, to the extent that emissions targets bite, this model has the advantage of allowing countries and industry sectors to find a free market solution to carbon emissions.

*70% support the introduction of European emissions trading in line with Kyoto targets*

**Restructuring Air Passenger Duty or pricing externalities should encourage behaviour change and provide an economic incentive to reduce carbon emissions**

11. Around £2bn a year is collected through APD at London's airports. This is not currently earmarked as an environmental tax. It is recommended that the price is adjusted to the carbon offset level as soon as practicable (recognizing that the means of pricing this is still immature).

*78% believe congestion should be reduced on surrounding roads*

12. APD is already higher than the cost of externalities for long haul business class flights, but could reflect the actual external costs of the flight, taking account of fuel per seat consumed based on length of trip and aircraft type. If the environmental impact of travel is priced into an individual ticket, this should both encourage behavioural change and provide an appropriate incentive to airlines to reduce environmental impact.

*63% believe all on-airport vehicles should be zero emission*

**Local environmental impact is the subject of Government review**

13. The results of the Government-sponsored Project for the Sustainable Development of Heathrow ('Project Heathrow') will accompany the public consultation on Heathrow expansion by offering the results of extensive research into air quality, noise and public transport. Limits on Nitrogen Dioxide and noise are seen as conditions for a third runway, as are improvements in public transport access to the airport and other measures to reduce congestion on the surrounding road network. Such work could raise consideration of, amongst other things, new road pricing schemes for landside and private vehicles to tackle road congestion at London's airports.