

CAA Response to the Airports Commission discussion paper on aviation connectivity

CAP 1023

The bottom half of the page features a large, abstract graphic. It is composed of several overlapping, curved shapes in various shades of blue and grey, creating a sense of depth and movement. The shapes are layered, with some appearing more prominent than others, and they fill the entire lower portion of the page.

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SECTION 1**Introductory remarks**

- 1.1 This paper constitutes the CAA's response to the Airports Commission's discussion paper on aviation connectivity.
- 1.2 As the UK's specialist aviation regulator, the CAA has significant relevant expertise. In particular, the CAA collects a broad range of statistics and survey data which underpin our understanding of trends in UK aviation.

SECTION 2**Aviation connectivity and its drivers**

Q2. Do you agree with the definition of connectivity presented in the paper? What other factors, if any, should we take into account and how do they impact connectivity?

- 2.1 As the Airports Commission notes, connectivity is a term which is often used but rarely defined. Connectivity combines a number of aspects of the choice and value available to consumers, such as the range of airports they can access and the range of destinations available, the frequency with which these destinations are served, and whether destinations can be reached directly or only through intermediate stops. A focus on connectivity puts a large part of what consumers want at the heart of the policy debate.
- 2.2 The Airports Commission's definition of connectivity incorporates many aspects of the choice and value that drive the consumer benefits of aviation. This includes the degree of choice available to consumers in terms of origin airport, airline and destination, as well as affordability:
1. Choice: The degree of choice available to consumers is a function of three dimensions:
 - a) Airports: Convenience of surface access is a major determinant of airport choice. Nearly 90% of the UK population live within two hours of at least two international airports, giving many UK-based consumers a level of airport choice that is unrivalled in Europe, and providing them with access to the route offerings of multiple airports;
 - b) Airlines: Ultimately airlines choose which routes to offer to passengers, but these decisions can be affected by a range of factors, including the availability of airport capacity, cost and the extent to which competition between airlines drives innovation in route offering. Aviation consumers' airline choice will be a function of various factors including accessibility to the origin airport, destination choice and cost.

- c) Destinations: Consumers value the range of destinations that they can access, whether they are travelling for business or leisure purposes. For some consumer groups, service frequency is important in providing flexibility to their travel options. The range of destinations and the frequency with which they are served are key aspects of connectivity. Where destinations are not served directly, or only infrequently, indirect connections through hub airports can widen the choice available to consumers;
 - 2. Value: The competition that has arisen as a result of liberalisation of the European aviation market has significantly increased the affordability of aviation. Competition, the flexibility to allocate capacity efficiently, and the availability of additional capacity to support growth are all likely to be important aspects that impact upon the range of people who have affordable access to connectivity benefits.
- 2.3 The CAA therefore agrees with the Airport Commission's definition of connectivity.

Q3. Do you agree with the assessment we have made of the UK's current aviation connectivity?

- 2.4 The CAA broadly agrees with the Airports Commission's assessment of UK's current aviation connectivity. As the CAA set out in its insight note, Aviation Policy for Consumers¹, UK consumers currently enjoy the benefits of very high levels of aviation connectivity.
- 2.5 Airport Accessibility: Nearly 90% of the population live within two hours travel time of at least two international airports giving UK consumers very high levels of accessibility to aviation. In the South-East, where airport density is greatest, consumers currently enjoy levels of accessibility to aviation services that are virtually unparalleled in Europe.
- 2.6 Connectivity from London and the South-East: Taking all of its airports together, London ranks as the best connected city in the world, reinforcing and supporting London's status as a global business hub. London's airports serve many more routes than any other European city.
- 2.7 Connectivity from the rest of the UK: As the Airports Commission recognises in its discussion paper, it is important to consider

1 http://www.caa.co.uk/docs/589/CAA_InsightNote1_Aviation_Policy_For_The_Consumer.pdf

connectivity in terms of the UK as a whole and not focus narrowly on London.

- 2.8 In the decade prior to the global economic downturn, services at UK airports outside the South East developed strongly, with passenger numbers increasing by approximately 50%. Indeed, until 2007, passenger growth at these airports was nearly double that at London airports over the same period.
- 2.9 However, this growth was largely limited to short-haul routes. For long-haul connectivity, consumers outside London and the South-East are reliant on indirect connections via 'hub' or 'transfer' airports for access to most global destinations.

Q4. What factors do you think contribute to the fact that the UK is directly better connected to some regions of the world than others?

- 2.10 The primary determinant of route networks and aviation connectivity is demand. There is compelling evidence that route networks adapt and adjust to reflect trends in demand.
- 2.11 As the Airports Commission notes, the UK is better connected to some world regions than others. This is not unique to the UK: patterns of 'specialisation' can also be observed at some of other major European airports.
- 2.12 Such specialisation is likely to be due to a combination of three factors:
1. Geography;
 2. Economic structure and links;
 3. Historic and cultural ties.
- 2.13 In terms of geography, London is well-placed, at the western edge of Europe, to aggregate traffic heading across the North Atlantic to the USA and Canada. Similarly, Madrid is the leading European airport for connections to Latin America and Charles de Gaulle has the greatest number of flights serving Africa.
- 2.14 It is likely that the UK's strong position in the financial and business services sectors is one determinant of its very strong air links to global financial centres such as New York and Hong Kong, and may also

partly explain why countries with a strong manufacturing base such as Germany are better connected to mainland China.

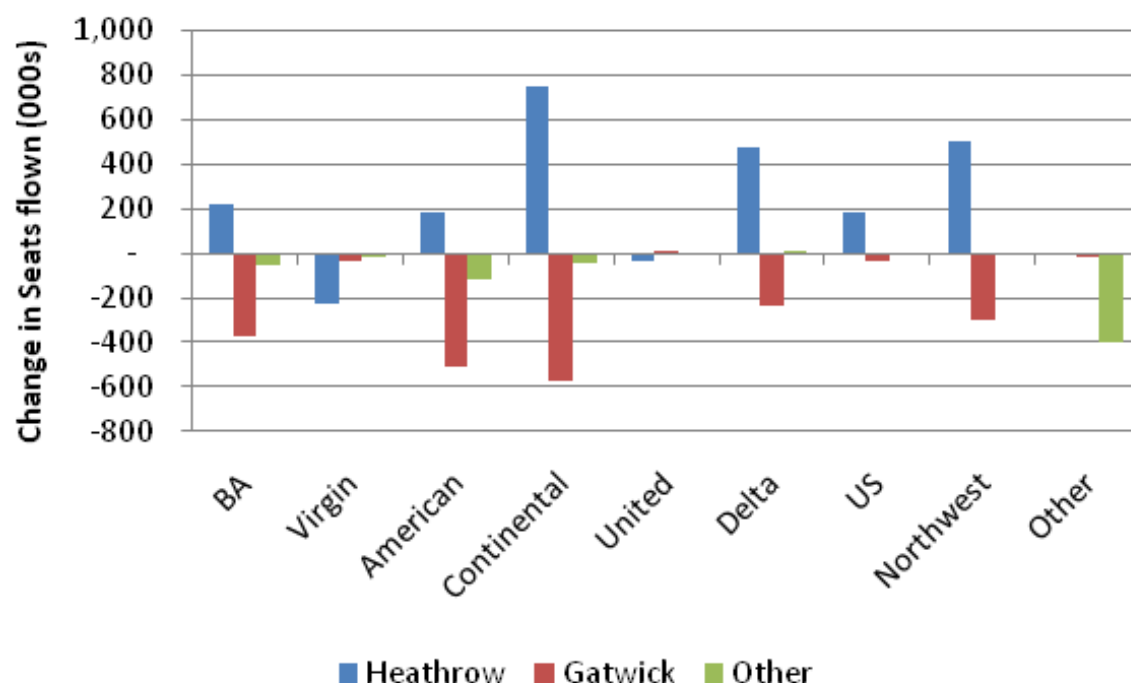
- 2.15 Cultural ties are also likely to be important determinants of demand. For example, the direct air links from UK cities including Birmingham, Leeds and Manchester to Pakistan are likely to be supported by passengers visiting friends and relatives in these countries. Similarly, following the accession of Central and European countries into the European Union in 2004 there was a rapid expansion of flights to and from these countries. The CAA explored some of these issues in more detail in CAP787 International relations: The growth in travel to visit friends and relatives.²

Q5. Given connectivity trends in the UK versus other European countries, how much scope is there for route network available to UK residents to radically change over the coming years?

- 2.16 While London is well connected now, some have asked whether London airports can respond as quickly as other major airports as global economic activity shifts to emerging markets such as China, India and South America.
- 2.17 A frequently cited impact of capacity constraints at Heathrow is that it is not possible to launch new routes to emerging markets. Our analysis does not fully support this view. Experience following recent liberalisations (EU-US Open Skies, and UK-India liberalisation) suggests that airlines are able to meet sufficiently strong demand for new routes. As an example, Figure 1 shows the change in capacity offered on routes between the UK and the US between 2008 and 2009 following implementation of the EU-US Open Skies agreement.

² <http://www.caa.co.uk/docs/33/CAP787.pdf>

Figure 1: Change in capacity between 2008 (year to March) and 2009 (year to March) on routes to/from the US at Heathrow, Gatwick, and regional airports ('Other').



Source: CAA Airport Statistics

- 2.18 However, it is true that as a result of slot constraints at Heathrow, airlines looking to start a new service must either acquire additional slots on the secondary slot market or sacrifice an existing service. This 'opportunity cost', which is higher at congested airports, increases the profitability threshold which airlines need to expect to meet in order to launch new routes.
- 2.19 In addition, anecdotal evidence indicates that the lack of additional capacity at Heathrow has already had a negative effect on the UK's ability to liberalise Air Services Agreements with foreign states. This trend is likely to become more acute as London's airports become more congested, further threatening the UK's ability to access restricted markets in rapidly growing parts of the world.

Q6. To what extent do you consider indirect connectivity to be an important part of presenting an accurate picture of the UK's nature of connectivity?

2.20 Indirect connectivity is important for two primary reasons:

1. As already noted in the response to question 3, consumers outside of London and South-East rely on indirect connectivity in order to access the majority of long-haul destinations that are not commercially viable on a point-to-point basis;
2. By supporting marginal routes and frequencies, transfer passengers contribute to direct connectivity for those consumers in the catchment area of hub airports.

SECTION 3**Aviation connectivity and the economy**

Q7. To what extent do you agree with evidence that aviation connectivity supports the UK's economic growth through facilitating: trade in goods; trade in services; business investment and innovation, and productivity?

To what degree can causality between connectivity and economic activity be established? Are there any particular research methods that we should be looking at and why?

- 3.1 Research published by the CBI³ indicates that causality runs both ways. By analysing the data for lagged effects (a change in one variable having an impact on the other in subsequent years), the study indicates that direct flights and trade fuel and feed each other, 'creating a virtuous circle of activity'. The CBI research estimates that "as much as £128m additional annual trade could result from one new daily route to one of the 8 largest high-growth economies."⁴

3 http://www.cbi.org.uk/media/1976885/cbi_trading_places_report_mar_2013.pdf

4 China, India, Russia, Turkey, Mexico, Brazil, South Korea, Indonesia.

SECTION 4

UK's future aviation connectivity needs and objectives

Q8. What is the best approach to measuring the UK's aviation connectivity?

Connectivity depends on many factors, such as number and frequency of flights and time and cost of travelling to passengers. Do you consider any of these factors to be of particular relevance to facilitating specific types of economic activity?

- 4.1 It is likely that all of these factors are relevant to all forms of economic activity, albeit potentially with different degrees of emphasis.
- 4.2 For example, time and frequency are likely to be particularly important in facilitating trade in services and attracting inward investment. The CAA explored some of the drivers for business travel in CAP796 Flying on business⁵. The time advantage offered by air cargo is also likely to be important for those sectors that use air cargo intensively, given the significant cost premium for shipping goods by air rather than by land or water-based modes.
- 4.3 In contrast, cost may be more relevant to tourism. The importance of frequency will be dependent on likely trip duration, for example a weekly service may be sufficient for attracting tourist visitors from long-haul origin markets. [could ref to 'the elasticity study' quite old now, but looked at price elasticity of leisure demand]

⁵ <http://www.caa.co.uk/docs/33/CAP796.pdf>

Q9. We have outlined a few different measures of connectivity in the paper. What alternative measuring approaches that we have not mentioned should we take into account?

- 4.4 Given the broad definition of connectivity which the Commission has adopted, including frequency, time and cost elements, it may prove difficult to find a single measure which captures all of these.
- 4.5 None of the metrics listed in the Commission's document contain any explicit measurement of cost of travel, although it could be assumed that volume of seats on the route (especially in combination with some measure of likely demand, say, using the size of catchment areas at either end) could act as a proxy for travel cost.
- 4.6 We have already emphasised the importance of considering connectivity for the UK as a whole. In doing so, it will be necessary to recognise the benefit of access to hub airports as well as direct routes, whilst capturing the better connectivity offered by a direct service over an indirect routeing.
- 4.7 Recognising the range of factors involved, a multi-criteria or 'balanced scorecard' approach may be more appropriate than attempting to develop a single measure of connectivity.

Q10. What kinds of impact do you consider capacity constraints to have on the frequency and number of destinations served by the UK? And, if any, are any particular kinds of routes or destinations likely to be more affected than others?

Q11. To what extent do you consider that the need for additional connectivity may support the argument that additional capacity may be required?

- 4.8 Capacity pressures could affect a number of dimensions of connectivity including the mix of routes, the resilience of service and the price of air travel, all the to detriment of consumers

- 4.9 For example, while London is likely to remain well connected, capacity constraints at London's airports may already mean that they are less able than airports in other European cities to adjust as global economic activity shifts to emerging markets such as China, India and South America.
- 4.10 In its insight note, Aviation Policy and Consumers, the CAA noted that this trend is likely to become more pronounced and identified a number of potential consequences, based on experience at Heathrow since it has been operating at or close to capacity:
1. Capacity constraints will increasingly shape network configuration by reinforcing the trend towards focusing on the most profitable, high-yield routes;
 2. At Heathrow this is likely to lead to further specialisation on long-haul routes, in particular those serving North America for which Heathrow offers a geographical and economic advantage;
 3. However, a short-haul network will still be needed to sustain long-haul routes by providing feeder traffic;
 4. The additional 'opportunity cost' of launching new routes may result in airlines being less likely to 'take a chance' on launching services to emerging markets from Heathrow, especially where UK-based demand does not generate a sufficient volume of premium traffic;
 5. The lack of available capacity at Heathrow may already have had a negative effect on the UK's ability to liberalise Air Services Agreements with foreign states, which would potentially open up routes into emerging markets. This trend is likely to become more acute as London's airports become more congested.
 6. Heathrow has already been operating at or close to capacity for approximately 10 years. Experience at Heathrow over this period may offer a useful insight as to the trends which might emerge at other airports in the future, as they become increasingly congested.
 7. The trend at Heathrow has been for airlines to enhance 'slot productivity' by allocating scarce capacity to the most profitable routes. These routes tend to be operated at a higher frequency than at other European hub airports, but with the total number of destinations served from Heathrow declining over time.

- 4.11 Heathrow differs from other UK airports in a number of important ways and one should therefore be careful not to stretch comparisons. Heathrow's relative specialisation on long-haul routes has, in part, been facilitated by the ability of airlines to use other London airports to serve different markets.
- 4.12 Similarly, many airlines operating at other UK airports follow different business models to those employed by the network carriers who are the major airline customers at Heathrow. It does not necessarily follow that airlines' route networks will adapt to congestion at these airports in the same way as has occurred at Heathrow.
- 4.13 It is clear that airlines will be incentivised to focus on operating the most profitable network and schedule. More marginal and less profitable routes and services will tend to get squeezed, restricting choice for consumers that value those services.
- 4.14 Increasing congestion is also likely to limit competition. The difficulty or cost of obtaining take off and landing slots at capacity constrained airports will create higher barriers for new entrants and may encourage consolidation of existing competitors. This is likely to further affect the choice and value available to consumers.
- 4.15 A further trend which is likely to be driven by capacity constraints at Heathrow is the reduction in the number of domestic airports with connections to Heathrow. Between 2000 and 2010 the number of domestic airports served from Heathrow fell from ten to seven. However, service frequency on the remaining regional connections to Heathrow is high, as are load factors, suggesting a pooling or concentration of demand into a more limited number of domestic airports.