

Response to Discussion Paper 02 on Aviation Connectivity and the Economy

Submission by Gatwick Airport Ltd

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Summary

Gatwick Airport Limited welcomes the discussion paper from the Airports Commission, Aviation Connectivity and the Economy (Discussion Paper 02), dated March 2013. Our main comments are summarised as follows -

- The cost of air travel should be a vital consideration in the Commission's research. Connectivity is not just about availability but affordability.
- The Commission needs to give consideration to options which enhance the competitive dynamics of the UK aviation market – this competition will ensure route development that best meets the needs of the UK and foster competitive pricing due to airport and airline competition.
- The Commission's analysis needs to recognise the connectivity that is being developed by London Gatwick. Connecting London to Indonesia is the latest example to support Gatwick's view that competition can deliver the connectivity necessary to retain the UK's status as a leading aviation hub.
- Caution should be applied when data from the past – reflecting common ownership of London's airports – is used to derive conclusions of the future. Frontier Economics, commissioned by Heathrow, identifying Indonesia as a country that needed traditional hub capacity to connect it to London being a recent example of this.
- We continue to believe that reliance on the CAA's survey data with respect to the number of transfer passengers over estimates the importance of this particular segment of the aviation market.

London and the UK currently have excellent connections to the rest of the World. London Gatwick believes that competition between airports is the best way for this level of connectivity to be retained. Prior to the issue of the Commission's paper on connectivity, we commissioned work in this area. We are intending to submit this evidence to the Commission as part of the longer term options proposals on 19 July 2013.

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Preamble

Defining Connectivity

London Gatwick supports the Commission's focus on connectivity and its important contribution to the UK economy. Retaining the excellent connectivity of London and the UK to the World will be an important test as to whether the Airports Commission has delivered an acceptable recommendation to the Government (of the day) in 2015. Connectivity has both supply and demand elements.

- **Supply Side**

Carriers can achieve higher traffic levels on any given route if there are transfers from other routes operated by itself, its alliance partner and/or other unaligned carriers. This might result in low costs (economies of route density), although such economies have diminishing returns from transfer traffic and at some level of connectivity there may be little or no further benefit.

- **Demand Side**

Consumers and the regional/national economy derive benefits from higher levels of connectivity. However, there are many dimensions to connectivity, each of which drive different levels of benefits: how many and which cities are connected, the frequency of service, the competitive choice of access, and the price of access. The latter two points are especially important and easily overlooked. Connectivity via a single monopoly carrier (or alliance) can lead to higher fares resulting in lower consumer benefits than connectivity to the same points by competing carriers. Likewise, connectivity via a single dominant airport is likely to lead to higher fares, leading to lower consumer benefits than connectivity from competing airports.

Air travel (like most forms of transportation) is a derived demand – for the most part, people travel to fulfil some other need: to conduct business, facilitate trade, enjoy a holiday or visit friends and family. This is even more apparent when considering air cargo – goods are flown to markets to be sold or to be used as inputs into other production processes. In economists' terms, air travel is a factor of production for another activity – a means to an end. In order for these other needs to be met effectively, air travel should be convenient, available and affordable. The concept of connectivity can be used to evaluate these requirements.

London Gatwick agrees with the Commission's definition of connectivity which seeks to incorporate various dimensions:

- Availability of direct and indirect service;
- Level of frequency;
- Reliability and accessibility; and
- Cost of flight.

As noted in paragraph 2.10 of the Commission's paper, the UK is not geographically well positioned to capture transfer traffic to/from continental Europe and emerging markets in Asia. Accordingly, ensuring that the UK is effectively connected to world markets and destinations should be the focus of the Commission's analysis, not whether a mega-hub for a dominant carrier and its alliance, with large flows of transferring passengers, can be developed in the UK. Such mega-hubs are being developed in Dubai and Istanbul, which seek to serve transfer flows between Europe, Asia, Africa and other parts of the world but these have advantages in geographical location that the UK cannot replicate.

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In general, Gatwick supports the discussion on Chapter 2:

- We agree with the Commission's description of the UK's connectivity position and the comparison with Paris, Frankfurt, Madrid and Amsterdam. We note that connections to many points in the UK (e.g., Birmingham, Southampton, etc.) are not viable for air carriers due to the short distances involved and the availability of effective alternatives (road and rail). Merely counting *air* routes may understate the true connectivity of the UK market to the rest of the world via London airports.
- Gatwick encourages the type of analysis in Figure 2-4 illustrating the connectivity with world regions, and comparison with other major cities and airports. As well as Dubai Airport, we would recommend Istanbul, given its rapidly emerging status as a major airport.
- The analysis of connectivity to the BRIC economies is valid and important. However, other markets are important and, in the long term, new markets may emerge which have not yet been anticipated. Thus, the focus should not be picking winners and losers, route-wise, but rather on ensuring that there is a framework and infrastructure that allows the UK to exploit new opportunities as they arise. In particular, the Commission should be considering how competition will provide the connectivity that might be needed in the future.
- London Gatwick supports the conclusion that London and the UK are well connected today, although this connectivity is stronger in some markets than in others. We note that this connectivity, both short and long haul, is being provided by a number of airports and not just Heathrow. For example, Gatwick already provides connectivity to points in China, Vietnam, the Middle East and Indonesia¹ (starting in Q4 2013).

However, Gatwick is concerned about the use of CAA survey data for some of the analysis, particularly as it relates to transfer passengers at Heathrow and other airports. As noted in our response to Discussion Paper 01 (Aviation Demand Forecasting), we have found that the surveys overstate the proportion of transfer traffic at the London airports. Alternate data sources such as data from IATA (PaxIS and AirportIS data products) are likely to be more accurate indicators of transfer passengers, since they are based on actual ticket bookings.

How Aviation Connectivity Contributes to the UK Economy

London Gatwick agrees with the Commission's characterisation of the ways in which aviation contributes to the UK economy. As mentioned in the discussion paper, in the first instance aviation generates employment and valued-added within its own sector – employment at airports, airlines, and other industries that supply and support aviation. This includes the high-value aerospace industry involved in the manufacture and servicing of aircraft and aircraft components a sector in which the UK is a world leader. However, aviation connectivity also facilitates the growth and development of many other sectors of the economy. This is sometimes referred to as catalytic impacts or wider economic benefits. As the discussion paper describes, these impacts include:

- Trade in services;
- Trade in goods;

¹ The announcement of a connection between London Gatwick and Indonesia was particularly relevant as Frontier Economics cited, in Heathrow's "One hub or no hub" report, that the lack of a connection to Indonesia supports the need for traditional hub capacity.

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- Tourism;
- Business investment and innovation; and
- Productivity.

We recognise that the relationship between aviation connectivity and these catalytic impacts is complex – e.g. just as air connectivity can facilitate trade in services, trade in service increases demand for air travel. We also agree that while air connectivity alone is not sufficient for trade, tourism, investment and productivity, it is an important contributor.

We agree with the concept of linking measures of each of these impacts to measures of air connectivity, as has been done in Figures 3-1, 3-2 and 4-1, but question why only air capacity at Heathrow has been considered. As described in paragraphs 2.13 and 3.19 of the discussion paper, London Gatwick offers connectivity to emerging long haul markets, as well as many other short and long haul destinations. We recommend that the Commission uses measures that consider the connectivity contribution of all London's and the UK's airports.

Trade in Services

Gatwick supports the Commission's description of the positive relationship between air connectivity and trade in services in paragraphs 3.11 to 3.25, which is effectively summarised in Table 3.1. Air travel plays an important role in facilitating sales and business development and servicing clients. We also agree that the impact of teleconferencing technology on demand for travel is unclear at this stage, although there is some evidence that its impact is neutral or possibly even positive (i.e., teleconferencing is increasing the demand for air travel)². Thus, we are of the view that it will have a negligible impact on air travel growth. The description of direct and indirect connectivity in Box 3.1 is a very useful and effective description of the development of air connectivity and we agree with the analysis.

However, we question again why the value of UK service exports is compared with just seat capacity at Heathrow rather than including other airports (or at least all London airports). We also question why existing capacity constraints at Heathrow are seen to be limiting the impact of the airports sector to accommodate long-term growth. The Commission is then correct to cite London Gatwick to Indonesia as showing that competition may be possible of delivering the connectivity identified as being necessary.

Response to 3.24: The Commission would welcome submissions explaining how these factors affect business decisions and the wider issues which should be taken into account

Empirical research has been conducted showing that air services have influence and help develop trade in services and related employment: For example, a study commissioned by IATA surveyed 625 businesses in five countries (China, Chile, United States, Czech Republic and France), and found that 25% of their sales were dependent on good air transport links³. This percentage rose to 40% for high tech companies.

² E.g., Choo and Mokhtarian (2007), Telecommunications and travel demand and supply: Aggregate structural equation models for the U.S.

³ *Airline Network Benefits*, IATA Economic Briefing No. 3, 2006.

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However, as we cite below, correlation does not necessarily imply causation. Further work is being undertaken by London Gatwick in this area.

Trade in Goods

Although air cargo accounts for only 0.5% of the volume of global trade shipments, it accounts for over 35% by value, meaning that air cargo is high value, often time-perishable or time-sensitive⁴. Gatwick supports the Commission's description of the importance of air transport to the UK economy, particularly for high-value goods. Air transport not only supports the export of UK goods to overseas markets but also the supply of parts and machinery necessary for production processes in the UK.

The Commission rightly highlights the importance of bellyhold freight and the distinction between this and dedicated freighter operations. When considering the impact of air connectivity on trade in goods, it should be borne in mind that the characteristics of air freight differ greatly from passenger traffic. Air freight is very heterogeneous: it can include documents, machinery, foodstuffs, live animals and literally anything else that people wish to ship. Air cargo can exhibit severe directional imbalances. In general, air passenger flows tend to directionally balance – nearly all passengers who fly from a country return back to that country (and most on the same route). By contrast, air cargo can exhibit strong flows in one direction (e.g., exports from one country to another) which are not necessarily matched in the opposite direction (e.g., there are limited imports from the same country). This imbalance has major implications for capacity management and pricing (e.g., freight rates for the “weak” directional flow can be very low). Furthermore, cargo operations often require airports to operate on a 24/7 basis to facilitate just-in-time delivery. Airports subject to curfews are less attractive for cargo operations. As a result, in many parts of the world, cargo operations have moved to regional or secondary airports not subject to night-time or noise restrictions.

The comparison of UK export and seats capacity in Figure 3-2 is based on Heathrow operations (although it is described as total UK seats in paragraph 3.34). Again, we question the focus on only Heathrow's services. For example, Gatwick offers operates service to China which appears in the chart as an underserved market relative to seat capacity.

Response to 3.29: The Commission would be interested in evidence as to whether and to what extent capacity constraints at Heathrow are affecting the operation of these markets, as well as the air freight markets serving other emerging economies and major trade partners.

We have not seen evidence to support the view that constraints at Heathrow are affecting the operation of these markets. Rather, we would suggest that other issues such as lack of night flights, congestion on roads and traffic distribution rules have a significant impact on Heathrow's role as a cargo airport.

Response to 3.33: The Commission would be interested in receiving evidence in this area and case studies providing examples on where the availability of aviation links has directly influenced firms' supply chains.

⁴ Source: Air Transport Action Group: <http://www.atag.org/>.

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The academic literature supports the role of aviation in the trade of goods. Cech (2004) used a cross-section statistical comparison method to investigate how air cargo services affect local economies, including: 1) the attractiveness of an area for the creation of new jobs and retention of existing jobs (measured by employment), 2) the impact on economic growth (measured by earnings) and 3) the impact on added value created by employees and subsequent improvement of efficiency and competitiveness (measured by earnings per employee)⁵. The author grouped 125 U.S. counties with similar population size into seven groups depending on the number of airports to which they connected, the volume of cargo handled and the frequency of flight service. The author concluded that there is a positive catalytic effect related to accessibility to air cargo services. More specifically, the catalytic effect can lead to an increase in the number of jobs as well as improve regional productivity and increase employee earning. The transportation sector is influenced most by the accessibility of air cargo services. However, construction, retail and wholesale trade industries are also influenced positively.

Tourism

London Gatwick agrees with the Commission's analysis of the importance of airport capacity to support tourism. Air service can facilitate the arrival of larger numbers of tourists to a region or country. The spending of these tourists can support a wide range of tourism-related businesses: hotels, restaurants, theatres, car rentals, etc.

In a recent study for the Travel Association ABTA, the Centre for Economics and Business Research (Cebr) examined the value to the UK of the outbound travel sector. Its research found that the economic contribution of outbound travel, much of it facilitated by air travel, is significant, accounting directly for 1.6% of UK GDP. Their analysis suggests that domestic spend on outbound travel products and services in the UK is almost exactly equal to the spend by UK tourists abroad. In other words, holidaymakers spend as much in the UK on their holiday as they do when they are away⁶.

The UK's historical and cultural attractions place it in a strong position to compete for these tourists, but affordable and accessible air service is a critical requirement. This is not to say that the focus should be purely on emerging markets. As Table 3.2 illustrates, established source markets such as the U.S., France and Germany contribute large numbers of tourists and are expected to still be growth markets. Figure 3-5 highlights the high spend rates of visitors from developing economies. We note that Gatwick already provide services to many of these countries (e.g., Morocco, Egypt, UAE), and is well placed to play an important role in facilitating the arrivals of these high-spend visitors. We agree that air connectivity is not the only factor affecting visits, and other issues, such as visa requirements and Air Passenger Duty, are also important.

Business Investment and Innovation

We agree with the Commission's assessment of the role of air connectivity in inward investment and business location decisions. As the discussion paper notes, business surveys and academic research have identified air connectivity as a significant factor. It is clearly not the only factor, and its impact is often difficult to determine, but this does not mean it should not be considered in the Commission's research.

⁵ Cech P. (2004), "The Catalytic Effect of the Accessibility to Air Cargo Services," TIACA Graduate Research Paper Competition.

⁶ Cebr, *Driving Growth: The economic value of outbound tourism* (2012)

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Response to 3.50: The Commission would be interested in receiving evidence and case studies in this area – for example, providing examples on where the availability of aviation links has directly influenced investment decisions or, conversely, where such investment has been made despite a lack of connectivity.

The discussion paper references a number of studies in this area. We have highlighted below other studies that may be of interest.

A study commissioned by IATA surveyed 625 businesses in five countries (China, Chile, United States, Czech Republic and France), and found that 63% of firms stated that air transport was vital or very important to investment decisions, while a further 24% said it was somewhat important⁷. On average, 18% of firms reported that the lack of good air transport links had affected their past investment decisions.

A study by York Aviation investigating the factors affecting individual company location decisions in Europe found that proximity to a major airport was the fourth most important factor when deciding the country of location of the European headquarters of companies, and was the most important factor when deciding the region of location within the country⁸.

The discussion paper footnotes an academic research paper published in 2008 which analysed the relationship between international air service and the location of large firm's headquarters across major European urban areas⁹. The research found that the supply of non-stop intercontinental flights was a significant factor in determining headquarter locations (along with other economic, business, labour and tax factors).

Long-Term Productivity Impacts

We agree with the Commission's assessment of the contribution of air connectivity to the UK's long-term productivity. Air connectivity promotes better connections with the global economy, allowing better access to new markets, contributes to a faster and more reliable supply chain and facilitates economies of agglomeration – specialised businesses clustering in the UK (high tech, finance, etc.). In many ways, the long-term productivity benefits are the aggregate net effect of the previous catalytic impacts (trade, investment, business location, etc.). For example, greater trade allows businesses to benefit from economies of scale and greater specialisation as they sell to a larger market. Investment decisions (expanding operations, developing new operations, introducing new technologies) will also have the effect of improving the productivity of UK workers.

Defining the UK's Objectives for Aviation Connectivity

Recognising the importance of connectivity, the Commission is seeking ways in which to measure connectivity which reflect its importance to business and the UK population.

Our view is that it is not possible to have one single measure of connectivity that captures all aspects of its contribution to the economy. Simple measures such as number of destinations

⁷ *Airline Network Benefits*, IATA Economic Briefing No. 3, 2006.

⁸ *The Social and Economic Impacts of Airports in Europe*, York Aviation, January 2004.

⁹ Bel, G. and Fageda, X. (2008), "Getting There Fast: Globalization, Intercontinental Flights and Location of Headquarters", *Journal of Economic Geography*, Vol. 8, No. 4.

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served (or number of destinations served daily), total frequency and total seats operated remain useful measures to understand the scale of connectivity and provide comparison with other major airports. As explained above, London Gatwick has commissioned work on connectivity which we will be submitting to the Airports Commission in July. It may be that we propose some alternative definitions of connectivity for consideration by the Commission.

In any event, we would caution against focussing too much on particular outcomes for the UK's connectivity. Such analysis will inevitably be based on projections of the future, which may or may not be correct – and using data from the past – which may or may not be a guide to the future. As noted before, the results from the Commission's work should be a framework and infrastructure that allows the UK the flexibility to enhance its connectivity – given the context of competing airports – as the global economy develops and ensure an efficient and competitive air transport system.

Responses to the Questions in the Conclusion

We now turn to the questions put by the Commission in Chapter 5 of the discussion paper.

5.4 Questions relating the nature of connectivity in the UK and its drivers

a) 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?

Gatwick agrees with the Commission's definition of connectivity which attempts to incorporate various dimensions:

- Availability of direct service;
- Level of frequency;
- Reliability and accessibility and;
- Cost of use.

Gatwick particularly supports the idea of focussing on connectivity rather than on transfer traffic or hub development. Ensuring that the UK is effectively connected to world markets and destinations should be the focus of the Commission's analysis, not whether a mega-hub dominated by a major carrier and/or its alliance, with large flows of connecting passengers, can be developed in the UK. Such mega-hubs are being developed in Dubai and Istanbul, which seek to serve transfer flows between Europe, Asia, Africa and other parts of the world. However, as noted in paragraph 2.10 of the Commission's paper, the UK is not geographically well positioned to capture certain transfer passengers to/from some of these fast growing emerging markets.

We also urge caution on interpreting the fewer connections of London Airports to UK points. The more limited number of air routes within the UK should not be viewed as a lack of connectivity to these points. Connectivity of many UK points to London airports is achieved via ground transportation. Merely counting air routes may understate the true connectivity of the UK market to the rest of the world via London airports.

Gatwick is very concerned about the use of CAA survey data for some of the analysis, particularly as it relates to transfer passengers at Heathrow and other airports. As noted in our response to Discussion Paper 1 (Aviation Demand Forecasting), we have found that the surveys overstate the proportion of transfer traffic at the London airports. Alternate data sources such as data from IATA

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(PaxIS and AirportIS data products) are likely to be more accurate indicators of transfer passengers, since they are based on actual ticket bookings, and we urge the Commission to work with the CAA to resolve these data anomalies.

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

We agree with the Commission's description of the UK's connectivity position and the comparison with Paris, Frankfurt, Madrid and Amsterdam but we urge caution in interpreting the connections of London Airports to UK points. Gatwick encourages the type of analysis in Figure 2-4 illustrating the connectivity with world regions, and comparison with other major cities and airports. As well as Dubai Airport, we would recommend Istanbul, given its rapidly emerging status as a major airport.

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

London is one of the largest O/D markets in the world. This has allowed it to develop an extensive range of services to destinations around the world. As illustrated in Figure 2-1 of the discussion paper, the London airports serve far more points than any other European city. This connectivity is based on the strength of the O/D market rather than dependence on transfer traffic. Heathrow has a smaller proportion of transfer traffic than Paris CDG, Frankfurt, Madrid or Amsterdam. While London has become a transfer point for some traffic between Europe and North America, it is poorly located to attract significant amounts of other transfer traffic (e.g., Europe-Asia, Europe-Africa). We estimate that 65% of London's transfer traffic is on Europe-North America routings (source: IATA PaxIS air passenger database, FY 2011/12).

The fact that the UK is better connected to some regions of the world than others is due to a wide range of factors including: geography, economic ties, cultural ties, inbound and outbound tourism demand, and historical factors. As a result, Europe and North America are particularly well served, and routes to Asia and South America have developed as these regions of the world have become economically more important.

We note that the development of connectivity in the UK market reflects the demands of the market, which will be different to market demand in France, the Netherlands and Germany, etc. The fact that Paris has more connections to China than London, for example, is to be large extent due to the business connections made between French and Chinese firms, and is not necessarily a reflection of capacity issues in the two cities. If additional connections to China were demanded by the London market, these could be accommodated. Thus, UK connectivity is not about matching connectivity of other airports, but ensuring that the London airport market is competitive and cost-effective enough to meet the needs of the UK market.

d) 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?

There is considerable scope for route availability to UK residents to change in the coming years. This is due to a number of trends within the industry:

1. The break-up of the London airport monopoly and the likely emergence of price competition between airports

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2. The potential development of long-haul services by low cost carriers. Currently, few low cost carriers have moved into long haul markets (Air Asia X is probably the most well-known example), but it is expected that LCCs will look to long haul as new short haul opportunities diminish¹⁰.
3. The emergence of mega-hubs in Dubai and Istanbul providing growing competition for transfer traffic to Heathrow and other European hubs, especially for traffic to Asia.
4. The roll-out of new technology aircraft; there are currently 800 B787 Dreamliner's on order, and 617 A350's from airlines. These are designed to fly long haul direct with low running costs - essentially point to point travel. By contrast: there are 260 A380's on order. 90 of these have been ordered by one airline (Emirates). They are designed with more traditional hub and spoke model in mind.
5. Increasing use of interline and code-share agreement by low cost carriers with long-haul airlines. This is becoming an increasingly important area of growth in the aviation market.

Case study

Carriers such as WestJet in Canada, JetBlue in the U.S., and V Australia and Jetstar in Australia have entered into codeshare and interline agreements with network carriers. For example: Jetblue has a codeshare with Lufthansa; Jetstar codeshares not only with its parent company, Qantas, but also Japan Airlines and American Airlines (and interlines with 25 other airlines); V Australia codeshares with Etihad. These arrangements enhance the profitability and network reach of the carriers, without major changes to their business models, and enhance the connecting options of customers. Etihad Airways, which is not part of any airline alliance, report that 19% of its revenues in 2012 originated from airline partnerships¹¹.

Obviously, the changes in the route network will also be affected by decisions made around airport capacity development in the UK.

What is essential is that we create an airports network with the flexibility to respond to future changes, rather than providing a larger version of yesterday's solution.

e) 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?

Indirect connectivity plays an important role, not least as a way of developing new traffic flows. No airport can be directly connected to everywhere. Therefore, all airports depend on the connecting opportunities made possible by operating services to other airports. We recognise that indirect services are less attractive to passengers than direct services, but economic realities mean that indirect services are necessary and often essential.

Furthermore, as illustrated in Box 3.1 of the discussion paper, indirect services can be the starting point for the eventual development of direct service – it establishes and fosters a demand that can eventually be met with direct service. Indirect connectivity also introduces additional competition to

¹⁰ easyJet is already operating in "medium haul" markets such as Moscow and Tel Aviv.

¹¹ <http://centreforaviation.com/analysis/japan-airlines-and-jetstar-japan-embrace-lcc-hybridity-codesharing---and-reap-rewards-99499>.

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the market – often indirect services will compete with direct service (e.g., London-Hong Kong direct vs. services via Frankfurt, Dubai, Istanbul, etc.). This can provide benefits to passengers and shippers in terms of pricing and increased frequencies.

5.5 Questions relating to the assessment of how aviation connectivity supports (1) trade in goods, (2) trade in services, (3) tourism, (4) business investment and innovation, and (5) productivity:

a) To what extent do you agree with evidence that aviation connectivity supports the UK's economic growth through facilitating each of (1)-(5)?

Gatwick fully agrees with the evidence that aviation connectivity contributes to economic growth through trade in goods and services, tourism, investment and productivity.

b) Are there other channels through which aviation connectivity might facilitate economic growth? What are they, and what evidence is there to support this?

The five channels described in the discussion paper encompass the main ways in which air transport can contribute to economic growth. We note that there can be considerable interaction between these channels. For example, increased investment and trade can contribute to improvements in long term national productivity. The ability to easily and cost-effectively export goods from the UK can attract foreign investment for manufacturing and assembly.

We also note that an increase of air transport activity creates additional employment in the aviation industry. Some of this work is high-value and high-skilled, such as maintenance and repair. While the purpose of developing airport capacity in the UK should not simply be to create aviation-sector jobs, it is still a significant positive by-product.

c) How effective do you consider that the aviation connectivity of the UK may facilitate economic growth now and in the future? What risks and opportunities does it present?

Currently, the UK has excellent levels of connectivity with the rest of the world, although connections to some parts are not as strong as others, based in part on the UK's comparative advantages in certain markets. Table 3-1 in the discussion paper effectively demonstrates how key investments in the UK make use of air capacity. Other research backs this up. For example, one study found that 63% of surveyed firms in China, Chile, United States, Czech Republic and France stated that air service was vital or very important to investment decisions, while a further 24% said it was somewhat important¹². On average, 18% of firms reported that the lack of good air transport links had affected their past investment decisions.

The question for the Commission is how the UK and London can maintain the existing levels of connectivity. Some, including Heathrow, argue that the creation of mega hubs airports is the way to maintain our existing levels of connectivity. Some, including London Gatwick, believe that competition between the existing airports is more likely to maintain the connectivity that London and the UK needs, as well as providing multiple additional benefits.

¹² *Airline Network Benefits*, IATA Economic Briefing No. 3, 2006.

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d) *How important do you consider connectivity for each of (1)-(5)?*

Air connectivity plays a significant, if different, role in all five channels:

- **Trade in Services.** The trade in services is about people. Face-to-face meetings play a crucial role in making sales and delivering services. The ability to be at a client's side rapidly and cost-effectively is important to many service industries. Much of the time, these functions cannot be replaced by teleconferencing or other forms of communication.
- **Trade in Goods.** As noted previously, although air cargo accounts for 0.5% of the volume of global trade shipments, it accounts for over 35% by value, meaning that air cargo is high value, often times perishable or time-sensitive¹³. Air transport not only supports the export of UK goods to overseas markets but also the supply of parts and machinery necessary for production processes in the UK.
- **Tourism.** Figure 3-4 of the discussion paper shows that, with the exception of France and Belgium, the majority of tourists from other countries arrive in the UK by air. Air connectivity is a critical element in attracting tourists.
- **Investment and Innovation.** The contribution of air connectivity may be less apparent than with trade and tourism. However, the research presented in Section 3.4 illustrates how connectivity contributes to investment and business location decisions.
- **Long-Term Productivity.** Again, the effect is less visible but there is research supporting the idea that aviation can contribute to the productivity of an economy.

e) *Are there other relevant policy issues which should be taken into account?*

The cost of air travel should be a vital consideration in the Commission's research. Connectivity is not just about availability but affordability. The Commission needs to give greater consideration to options which enhance the competitive dynamics of the UK aviation market – this competition will ensure route development best meets the needs of the market and foster competitive pricing due to airport and airline competition. Options which only enhance the competitive position of some players will ultimately be detrimental to the wider UK economy. For example, there is considerable evidence (largely from the U.S.), that airlines at dominant hub airports are able to charge a “hub premium”, exploiting their market position¹⁴. We note that there remains debate about the size and cause of this premium, but most research has found a premium of some degree. There is also evidence that these hub premiums can be reduced or eliminated by competition from other airports¹⁵. London Gatwick has commissioned further work in this area which will be submitted to the Commission in due course.

¹³ Source: Air Transport Action Group: <http://www.atag.org/>.

¹⁴ See for example:

Borenstein, S. (1989), Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry, *The RAND Journal of Economics* Vol. 20, No. 3 (Autumn, 1989), pp. 344-365.

Lijesen, M., P. Rietveld and P. Nijkamp (2001). Hub premiums in European civil aviation. In: *Transport Policy*, 8(3), 193-199.

¹⁵ Morrison, S. (2001), *Actual, Adjacent and Potential Competition: Estimating the Full Effect of Southwest Airlines*, *Journal of Transport Economics and Policy*, Volume 35, Part 2, May 2001.

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Case study

The CAA¹⁶ awarded the right to fly to Moscow from London to easyJet out of London Gatwick rather than Virgin Atlantic out of Heathrow -

“...Virgin argued that its proposal would impose the greatest competitive constraint on BA’s operations from Heathrow. The CAA does not agree with Virgin’s argument that easyJet’s proposal will not stimulate competition with the existing Heathrow services because it is proposing to operate from Gatwick. Rather, the CAA considers that Gatwick and Heathrow can be considered to be in the same market, and therefore that there will be competition between services from the two airports...”

We can now see the impact of the CAA’s decision. Today, you can book a return flight to Moscow for a week’s trip starting a month today (on 19 May). easyJet is charging £145 return (from Gatwick) compared to British Airways charging £354 (from Heathrow). This shows the value of competition between airlines and airports leading to lower fares for passengers.

A further policy consideration should be a review of Air Passenger Duty. This has been cited by airlines as the reason for the removal of routes from London. In addition, the case for “self-connections” is weakened by requirement of such passengers to pay APD twice.

The other policy issues that should be taken into account by the Commission will be submitted by Gatwick to the Commission as part of our proposals for short and medium term measures due on 17 May.

f) To what degree can causality between connectivity and (1)-(5) be established? Are there any particular research methods that we should be looking at and why?

Correlation does not necessarily demonstrate causality. Does great air connectivity increase economic growth, or does economic growth cause greater levels of air service and connectivity? The likely answer is that there is a two-way relationship – the effect works in both directions. Economic growth stimulates demand for air services while at the same time, these air services open up new opportunities for tourism, trade, business development, etc. This in turn can stimulate further demand for air services, and so on, in a “virtuous cycle”. Thus, while air connectivity alone is not sufficient for trade, tourism, investment and productivity, it is an important contributor.

The statistical research in this area has used a number of techniques to try to determine causality:

- Lagged variables. For example, examining the impact on economic growth (or trade, investment, etc) of air connectivity increases made one or more years previously. If a statistical relationship is established, this would suggest connectivity leads to economic growth (it is highly improbable that economic growth in the future would contribute to air connectivity growth in the past).
- Granger causality tests. This technique was developed by economist Clive Granger, who went on to win the Nobel Memorial Prize in Economic Sciences. The test attempts to determine causality rather than correlation by use of regression analysis of lagged variables¹⁷.

¹⁶ Decision on Scarce Capacity Allocation Certificates, CAA, October 2012

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- Non-recursive models. The estimation of norecursive models can be used to address issues of directly causality.

Research by InterVISTAS Consulting for IATA using Granger causality tests found that causality of air connectivity economic activity and productivity cannot be established, nor can it be rejected. This is in contrast to research they did for the telecommunications sector which found causality from investment in information and communications technology to national productivity¹⁸. As this suggests, quite technical analysis is often required to address these issues.

5.6 Questions relating to what the UK's objectives for the future aviation should be:

a) What is the best approach to measuring the UK's aviation connectivity?

Our view is that it is not possible to have one single measure of connectivity that captures all aspects of its contribution to the economy. There are both supply and demand aspects of connectivity. Simple measures such as number of destinations served (or number of destination served daily), total frequency and total seats operated remain useful measures to understand the scale of connectivity and provide comparison with other major airports. As explained above, we hope that work we have commissioned in this area will be able to inform the Commission's consideration in this area.

We also believe that the price or cost of air travel should be a vital consideration in the Commission's research. Connectivity is not just about availability but also about affordability. The Commission needs to give greater consideration to options which enhance the competitive dynamics of the UK aviation market – this competition will encourage the development of new routes, as airlines seek new market opportunities, and ensure competitive pricing due to airport and airline competition.

b) 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 any of (1)-(5)?

All of these factors are relevant to (1)-(5). All five economic channels are enhanced by air connectivity that is accessible, convenient and affordable. We especially emphasise the role and importance of the price of air service paid by passengers. High connectivity at high prices by a single airport dominated by one carrier and its alliances may have a lower passenger benefit than connectivity with competitive price offerings, delivered by competitive airlines and competitive airports.

c) 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?

As mentioned previously, London Gatwick will be submitting further evidence to answer this question.

¹⁷ Granger, C. W. J. (1969). "Investigating Causal Relations by Econometric Models and Cross-spectral Methods". *Econometrica* 37 (3), pp. 424–438

¹⁸ InterVISTAS Consulting Inc., "Measuring the Economic Rate of Return on Investment in Aviation", December 2006.

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d) 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?

While capacity constraints at Heathrow appear to be changing the mix of aircraft at that airport, it does not appear that the connectivity of London has been detrimentally affected. For example, London remains connected to the UK regions via Gatwick, even though regional connectivity via Heathrow has fallen.

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

The need for additional capacity is a complicated matter, affecting not only connectivity, but competition (between carriers and airports) and the costs to airlines and passengers associated with congestion. Connectivity and capacity are closely connected – additional capacity is required to allow more frequencies, more competition and more routes to be operated. Without additional capacity, the connectivity of the UK will be curtailed in the future. Furthermore, failure to develop capacity will increase congestion and delays beyond current levels. This imposes direct costs on airlines as their aircraft take longer to turnaround at the airport, impacting on aircraft utilisation, staffing, fuel burn and other costs. These in turn will ultimately result in higher prices to passengers. In addition, airlines will have to allow longer connection times for connecting passengers.

Next steps

We intend to submit further evidence to the Airports Commission on this important topic. In the meantime, we are content for this submission to be published.

Gatwick Airport Ltd
18th April 2013