

## **Airports Commission**

### **Discussion Paper 04: Airport Operational Models**

#### ***Response from Kent County Council***

**Q1: Do you consider that the analysis supports the case for increasing either hub capacity or non-hub capacity in the UK? Is there any additional evidence that you consider should be taken into account?**

The analysis supports the case for increasing hub capacity given that the UK's current hub airport is at full capacity. However, increasing capacity at other airports, for example at Gatwick, would provide a second hub that would be able to compete with Heathrow in providing much needed long haul connectivity to emerging markets. Competition will help drive down prices for consumers, improve passenger choice and convenience, and provide resilience in times of disruption.

The importance of non-hub capacity and the connectivity that this brings to parts of the UK through secondary and regional airports should also be taken into account.

**Q2: To what extent do the three potential futures outlined in Chapter 2 present a credible picture of the ways in which the aviation sector may develop? Are there other futures that should be considered?**

The three potential futures outlined present a credible picture of the ways in which the aviation sector may develop. However, it is likely that elements of all three future scenarios will develop as it is impossible to predict exactly how a sector is going to change over the longer term.

'Future 3' with the integration of the low cost and full service models with more airports operating some level of 'hub' type model, either provided by the airport itself or through airline partnerships, is a 'future' that is already happening and is likely to develop further. Gatwick are looking at ways of facilitating these informal self made connections, i.e. low cost short haul to long haul connections. The airport is piloting 'Gatwick Connect', based on the 'ViaMilano' service at Milan Malpensa Airport, which allows passengers with self made transfers to check in and drop off their bags for their connecting flight in the arrivals baggage reclaim hall before proceeding landside and back through security; without the need to carry bags back through to departures

and check in again. If there is demand, Gatwick have a long term vision to allow self-connecting passengers to remain airside<sup>1</sup>.

The non-aligned carrier Emirates has entered into a partnership with low cost carrier easyJet to allow members of Emirates Skywards Programme to redeem their frequent flier miles on easyJet's low cost short haul network<sup>2</sup>. This demonstrates that the future relationships between airlines may not be as simple as further consolidation into formal airline alliances; and although low cost carriers are unlikely to join the formal alliances, partnerships with network airlines may develop. These partnerships will help to facilitate connectivity networks, i.e. short haul to long haul transfers, but not in the traditional way of a hub and spoke network carrier, therefore supporting the future scenario described in 'Future 3'.

As described in 'Future 3', this scenario will result in the dominant role of focal airports being weakened. Growth will occur at existing non-hub or non-focal airports such as Gatwick. Therefore adding capacity at multiple airports across the London/South East area will provide the most appropriate solution to the development of the aviation sector in this way. Provision of a new single hub airport will not be effective in this future scenario.

Elements of 'Future 1' and 'Future 2' are in reality, also likely to occur. There may well be further consolidation and strengthening of the alliances in the traditional network carrier market segment as described in 'Future1'. Although this may result in focal airports becoming more dominant, it could also result in more focal airports, i.e. rather than London having one focal airport (Heathrow) it may develop a second focal airport at Gatwick. In a capacity constrained environment at Heathrow (with no new runways added), an alliance may wish to relocate to another airport where there is spare capacity (Gatwick with a second runway) to be able to better compete against the dominant alliance (BA/Oneworld) at Heathrow.

The trends described in 'Future 2' are also likely to develop to some extent. Middle Eastern carriers will continue to compete with European carriers for the long haul market resulting in the increased importance of hub airports in the Middle East for long haul transfer traffic. European hub airports may then find that they have to concentrate on the thickest (highest traffic) long haul routes and traffic across the Atlantic. The UK has a stronger market in serving transatlantic routes than other European countries, due to historic links with North America, shared language and also the UK's geographical location at the western part of Europe. The UK's geographical position may naturally limit the ability of the UK to operate as an aviation hub to emerging markets with Southern Europe better placed to serve as a European hub for South America; Russia better served from a Central European hub; and Asia and Australasia already being served by hub airports in the Middle East. If this is the case, the thickest long haul routes can be served from more than one

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<sup>1</sup> 'Making the best use of capacity in the short and medium term', Submission by Gatwick Airport Ltd, Ref Airports Commission: London Gatwick 006, 16 May 2013

<sup>2</sup> <http://www.ttgdigital.com/news/wtm-2012-emirates-revolutionary-tie-up-with-easyjet/4685817.article> (accessed 05/07/13)

focal airport, i.e. both Heathrow and Gatwick, as those routes will be supported by the large London/South East origin-destination market; and development of a new single hub airport would be in vain.

In summary, a dispersed model with growth at existing airports, rather than development of a single new hub or focal airport, is a more versatile and adaptable solution to the changing nature of the aviation sector, the course of which is difficult to predict in the long term.

**Q3: How are the trends discussed in Chapter 2 (e.g. liberalisation, growth of low-cost carriers, consolidations of alliances, and technological changes) likely to shape the future of the aviation sector? Do they strengthen or weaken the case for developing hub versus non-hub capacity?**

It is uncertain how the trends are likely to develop and shape the future of the aviation sector. Given this uncertainty it seems more appropriate to develop aviation capacity that is able to cater for a wide range of different market segments, e.g. low cost carriers and network carrier alliances, through capacity growth at various existing airports, rather than a single hub which is mainly beneficial to the traditional hub and spoke network carrier.

Technological changes weaken the case for developing hub capacity, as the latest technological advances in the aviation industry point to the fact that the shape of aviation operations could change in the future. The traditional hub and spoke aviation model may become less dominant with more point to point long haul services being provided by other airports. Such a scenario could operate to ensure UK connectivity remains amongst the highest in the world but without reliance on only one hub airport to provide this.

The next generation of aircraft, such as the Boeing 787 'Dreamliner', a smaller plane (210-290 passengers) is capable of operating on long range routes. This means that non-hub airports, i.e. without significant numbers of transfer passengers, will be able to start to offer a full range of long haul destinations as the aircraft has sufficient range and requires just 210-290 passengers to fill its seating capacity. An aircraft of this size could achieve an economically viable loading from the large origin-destination (O-D) market of London through an airport such as Gatwick, without the aircraft being supplemented by passengers from feeder flights in a hub and spoke model, as is the case at Heathrow. This could enable long haul international connectivity to be provided at London airports other than Heathrow, i.e. at Gatwick and Stansted, and potentially across the country at regional airports if there is sufficient demand for long haul services from their catchment areas.

**Q4: What are the impacts on airlines and passengers of the fact that the wave system at Heathrow operates under capacity constraints?**

Capacity constraints at Heathrow and the fact that it operates on only two runways, prevents the wave system of a hub airport from working effectively and facilitating minimum connection times for transferring passengers. This puts Heathrow at a competitive disadvantage with rival European airports, especially with Amsterdam Schiphol with its six runways at only around 70% capacity utilisation, and a single terminal to facilitate transfers of passengers and baggage effectively. Heathrow has invested significantly in its terminals to allow each airline alliance to be co-located with in single terminal, e.g. BA/Oneworld in Terminal 5, Star Alliance in the new T2 and Skyteam in T4. However, Heathrow's connection time target of 60 minutes is still higher than the 40 minute minimum connection time at Schiphol. The result is that passengers using the UK's hub airport have longer connection times, and are more at risk from delays due to capacity constraints not allowing for any resilience in times of disruption. All things considered though, Heathrow is already the most efficiently operated two runway airport in the world and handles more passengers than many airports with a greater number of runways, including Paris Charles de Gaulle, Frankfurt and Amsterdam Schiphol<sup>3</sup>.

It could be argued that because of its constraints, Heathrow does not really act as a 'true' hub airport. Only around a third of passengers at Heathrow are connecting passengers (33.6% in 2011<sup>4</sup>), compared to other hub airports with much higher levels of transfer traffic, e.g. Amsterdam Schiphol with 41% in 2012<sup>5</sup> and Frankfurt with approximately 54%<sup>6</sup> of passengers transferring in 2011. It is the large origin-destination market, with London as a 'world city' and the high population of the South East region, that supports the network of short and long haul services; rather than transfer traffic as is the case at 'true' hub airports such as Schiphol and Frankfurt.

**Q5: How does increasing size and scale affect the operation of a focal airport? Is there a limit to the viable scale of an airport of this kind?**

A new hub or focal airport of the size which has been suggested by advocates of a Thames Estuary airport, i.e. four runways and up to 150 million passengers per annum, is unprecedented in the UK in terms of scale. Indeed it is unprecedented in the entire world in terms of passenger numbers. The

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<sup>3</sup> 'Airport Study for the South East Local Enterprise Partnership: Research Study – Greater South East Airport Capacity', Parsons Brinckerhoff, May 2012

<sup>4</sup> 'CAA Passenger Survey Report 2011', Civil Aviation Authority, 2011

<sup>5</sup> <http://www.schiphol.nl/SchipholGroup/Company1/Statistics/TrafficReview.htm> (accessed 18/06/13)

<sup>6</sup> [http://www.fraport.com/content/fraport/en/misc/binaer/press-center/facts-and-figures/jcr:content.file/zadafa-2012\\_e\\_lowres.pdf](http://www.fraport.com/content/fraport/en/misc/binaer/press-center/facts-and-figures/jcr:content.file/zadafa-2012_e_lowres.pdf) (accessed 18/06/13)

busiest airport in the world is Atlanta in the USA with 89 million passengers in 2010<sup>7</sup>, therefore the size of the proposed new hub airport for the UK is almost 70% larger than the busiest airport in the world. Although Paris Charles de Gaulle and Frankfurt both have 4 runways and Amsterdam Schiphol has 6 runways, they serve 61 million passengers per annum (mppa), 56mppa and 50mppa respectively (all less than Heathrow's 70mppa with just 2 runways); therefore each of these European competitor airports are only around a third of the size of the proposed capacity of a new four runway hub airport in the Thames Estuary.

This scale of airport is unprecedented at a single site; therefore it is unknown whether this size of airport is operationally viable, before even considering the surface access challenges of transporting so many people to and from an airport of this size. A dispersed model with airport capacity growth spread across the London/South East area would provide several large airports, each on a manageable scale.

**Q6: Would expanding UK hub capacity (wherever located) bring materially different advantages and disadvantages of expanding non-hub capacity? You may wish to consider economic, social and environmental impacts of different airport operational models.**

Expanding UK hub capacity (wherever located) will bring economic benefits to the whole of the country as it will provide global connectivity with direct flights from the UK to a range of short and long haul business and leisure destinations. Although areas with the greatest accessibility to the hub airport, i.e. London and the South East, will benefit the most (assuming that the UK's hub or focal airport will continue to be located in the South East). However, expanding hub capacity will also have the greatest negative impact in terms of noise and detrimental environmental effects. These negative impacts will be focused in one specific area if a single hub or focal airport is developed.

It is also argued that hub or focal airports also concentrate their economic benefits in their specific locality, e.g. around Heathrow in west London, the Thames Valley and the M4 corridor; although the wider benefits to the national economy are also felt across the country. Non-hub or non-focal airports also provide economic benefits, although arguably not as important to the wider national economy, the benefits are spread around the country by impacting on their local area and region. For example, the North East has benefited through a connection to Emirates' Dubai hub from Newcastle Airport. It is estimated that inbound tourists spend around £16.7 million a year in the North East region, supporting around 230 jobs in the tourism industry; and the air service generates net economic benefits of £4.6 million a year to the North East<sup>8</sup>. Therefore a thriving regional airport is likely to be more important to a regional

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<sup>7</sup> <http://www.aci.aero/Data-Centre/Annual-Traffic-Data/Passengers/2010-final> (accessed 18/06/13)

<sup>8</sup> <http://www.routesonline.com/news/29/breaking-news/162495/the-emirates-effect-the-economic-impact-of-air-services/> accessed 19/04/2013

economy than the benefits derived from a national hub or focal airport in the South East that predominately serves London, re-enforces the South East's economic advantage and the North-South economic divide.

Although often not profitable as commercial businesses, regional airports are important economic drivers for regional economies in terms of direct, indirect, induced and catalytic employment; as well as wider economic benefits through agglomeration of business around transport nodes that provide connectivity to a wide range of markets.

In Kent County Council's (KCC's) *Bolds Steps for Aviation* discussion document<sup>9</sup>, it recommends that there should be better utilisation of spare capacity at regional airports. It is expected that passengers will use regional airports for short haul flights and for long haul destinations through indirect connections via other European hub airports. The growth of regional airports such as Manston (Kent's International) Airport will also have positive impacts in boosting regional economic growth in an economically disadvantaged area of the South East, rather than focusing economic activity in London.

**Q7: Do focal airports and non-focal airports bring different kinds of connectivity and, if so, which users benefit the most in each case?**

Focal airports bring long haul connectivity which benefits business users and the high end leisure passenger, whereas non-focal airports provide mainly short haul connectivity which also benefits business users and leisure passengers, albeit different sub-sets of these passenger types. It is important to have airports that serve a mix of different markets and therefore provides a range of different types of connectivity. For example, low cost carriers are more likely to use secondary airports, therefore provide valuable short haul point-to-point connectivity at a competitive price, which is used by both leisure and business passengers. This is a different market to that of a full service network carrier that provides a range of short and long haul connectivity from hub or focal airports. Providing international connectivity from secondary and regional airports also gives passengers from that catchment area the option of more convenient travel and reducing surface access transport costs, rather than having to travel further to access a main hub or focal airport.

**Q8: What would be the competitive effects (both international and domestic) of a major expansion of hub capacity, and what are the associated benefits and risks?**

Without expansion of hub capacity, the UK will fall behind its European competitors in terms of global connectivity and therefore have negative

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<sup>9</sup> 'Bold Steps for Aviation', Kent County Council, May 2012 with revisions July 2012, <https://shareweb.kent.gov.uk/Documents/News/Bold%20Steps%20for%20Aviation%20May%202012.pdf>

consequences for the UK economy. Table 1 shows the capacity and number of destinations served by London airports compared to other European hub airports.

As table 1 shows, Heathrow currently handles the largest number of passengers compared to its European competitor hub airports. However, by 2021, it is predicted to fall to third place behind Frankfurt and Paris Charles de Gaulle (CDG)<sup>10</sup>. As demand increases Heathrow will have little room to accommodate additional passengers, whereas Frankfurt, Paris CDG and Amsterdam Schiphol have sufficient available capacity (between 25-30%) to continue to take advantage of this growing market. This severely disadvantages Heathrow in supporting UK businesses to trade with growing markets.

**Table 1 Comparison of selected London and European Airports**

	Total Air Traffic Movements (2012)	Total passenger traffic (mppa) (2012)	Runways	Destinations served	Percentage of capacity used
<b>Heathrow</b>	471 791	69.9	2	193	98.5%
<b>Frankfurt</b>	487 162	56.4	4	296	74.2%
<b>Paris CDG</b>	514 059	60.9	4	258	73.5%
<b>Amsterdam Schiphol</b>	437 074	49.7	6	313	70%
<b>Gatwick</b>	240 494	34.2	1	200	85.5%
<b>Stansted</b>	132 920	17.5	1	150	50%
<b>Luton</b>	75 783	9.6	1	104	53% *
<b>Southend</b>	8 086	0.6	1	16	30%
<b>Manston</b>	1 004	0.009	1	5	0%

\* if planning application for 18mppa is approved

A report by Frontier Economics, commissioned by airport operator BAA in 2011<sup>11</sup>, found that UK businesses trade 20 times as much with emerging market countries that have direct daily flights to the UK; and a lack of direct flights to emerging markets may already be costing the economy £1.2 billion a year as trade goes to better connected competitors. Paris and Frankfurt already have 1,000 more annual flights to the three largest cities in China than Heathrow<sup>12</sup>. Heathrow has five flights per day to China serving two destinations, whilst Paris has eleven serving four destinations and Frankfurt ten serving six destinations<sup>13</sup>. Sao Paolo is the only South American destination served directly from London. These startling comparisons clearly

<sup>10</sup> 'Protecting London's position as a world city: creating the first "virtual hub airport"', Victoria Borwick, March 2012

<sup>11</sup> 'Connecting for growth: the role of Britain's hub airport in economic recovery', Frontier Economics Ltd, September 2011

<sup>12</sup> 'Airport Study for the South East Local Enterprise Partnership: Research Study – Greater South East Airport Capacity', Parsons Brinckerhoff, May 2012

<sup>13</sup> 'A new airport for London', Greater London Authority, 2011

illustrate the difficulties the UK is facing right now in remaining competitive and taking advantage of emerging markets.

In 1990 London's main UK airports had five runways, today nothing has changed. However in that time Schiphol has increased from 4 to 6, Frankfurt from 3 to 4 and Paris from 2 to 4 – overall this means our main competitors have added over 50% runway capacity<sup>14</sup>.

Table 1 clearly shows that Heathrow, although handling the most passengers, is lagging behind its European competitor airports in terms of number of destinations served and availability of capacity. However, when examining the London airport system as a whole, London as a city with multiple airports, is one of the best connected cities in the world. Indeed, the Airports Commission discussion paper on aviation connectivity and the economy stated that together the capital's five major airports serve more destinations than the airports of any other European city – over 360 destinations with at least a weekly service.

However, although there is spare capacity across the system, the airport most likely to be able to provide 'hub' operations in addition to Heathrow is Gatwick, which is also approaching its capacity limit and would need at least two runways to operate as a 'hub' similar to Heathrow. If the forecasts of significant aviation growth do occur, the rest of the available capacity across the London system will also fill up, most likely sometime in the 2030s, at which point an additional runway at Stansted should also be considered.

Expansion of hub capacity at existing airports will negate the risk to UK business of decline in the long period of time between a decision to build a new hub airport and when it becomes fully operational, the impacts of which will affect both international and domestic business. If a decision was made to relocate the UK's hub airport from Heathrow to the Thames Estuary, businesses to the west of London along the M4 corridor, which includes many multi-national companies, are just as likely to relocate to cities in Europe with existing hub airports rather than relocate to the Thames Estuary. This would have a devastating impact not only on west London, the Thames Valley and the M4 corridor, but on the whole of the South East and UK economy. The time taken between a decision to relocate the UK's hub airport and it opening would be at least twenty years, taking into account the planning process and construction, which would result in a period of two decades when there would be no investment in existing airport infrastructure. This runs the risk that businesses would relocate from the M4 corridor as Heathrow is run down for closure; and air connectivity is reduced as airlines look to serve airports elsewhere.

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<sup>14</sup> 'Airport Study for the South East Local Enterprise Partnership: Research Study – Greater South East Airport Capacity', Parsons Brinckerhoff, May 2012

**Q9: To what extent do transfer passengers benefit UK airports and the UK economy?**

Transfer passengers benefit the UK only through supplementing demand on 'thinner' long haul routes, and therefore support parts of a hub airlines' route network which would otherwise not be viable solely with origin-destination demand. This allows a wide range of destinations to be viable with direct flights from the UK. However, the majority of destinations are viable from the UK based on the strength of the origin-destination market which is addressed later in this response in answer to Question 11.

**Q10: Is there any evidence that the UK (or individual countries and regions within the UK) are disadvantaged by using overseas focal airports?**

There is evidence that rather than being disadvantaged, regions of the UK actually benefit from regional airports' connections to overseas focal airports, allowing connections to a range of short and long haul destinations.

Manston Airport in East Kent now has a connection to Amsterdam facilitating worldwide connections by 'hubbing' through Schiphol and this is expected to benefit this economically disadvantaged area of Kent; in a similar way to how the North East has benefited through a connection to Emirates' Dubai hub from Newcastle Airport. As previously stated, it is estimated that inbound tourists spend around £16.7 million a year in the North East region, supporting around 230 jobs in the tourism industry; and the air service generates net economic benefits of £4.6 million a year to the North East<sup>15</sup>.

**Q11: What specific characteristics of the UK and its cities and regions should be considered? For example, does the size of the London origin and destination market and the density of the route networks support or undermine the case for a dominant hub?**

The size of the London origin and destination market undermines the case for a dominant hub.

Gatwick Airport Ltd's own vision for competition with Heathrow is not necessarily based on attracting airlines that operate in a traditional hub and spoke model, but rather through attracting long haul carriers based on the strength of the London/South East origin-destination (O-D) market, without such a great need to supplement demand with transfer passengers from feeder traffic. Where this need exists and where there is demand, Gatwick are looking at ways of facilitating informal self made connections as previously described in the response to Question 2.

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<sup>15</sup> <http://www.routesonline.com/news/29/breaking-news/162495/the-emirates-effect-the-economic-impact-of-air-services/> accessed 19/04/2013

This type of competition between Heathrow and Gatwick does not necessarily need to detract Heathrow from being the UK's principal hub airport; rather it allows Gatwick to compete in the London airport market by catering for a different market segment. In terms of long haul, it may be possible that Heathrow focuses on the transatlantic North American routes and Gatwick on the Far East market. However, Gatwick does need to be able to expand, i.e. a second runway, for significant market growth to occur as the airport is close to its capacity limit for a single runway airport.

As previously described, only around a third of passengers at Heathrow are connecting passengers (33.6% in 2011<sup>16</sup>), compared to other hub airports with much higher levels of transfer traffic, e.g. Amsterdam Schiphol with 41% in 2012<sup>17</sup> and Frankfurt with approximately 54%<sup>18</sup> of passengers transferring in 2011. Therefore it could be argued that even Heathrow does not act as a 'true' hub, especially given that it only has two runways and therefore does not have the runway capacity to allow waves of arriving and departing flights with minimised connection times that 'true' hub airports can provide, e.g. Amsterdam has six runways and Frankfurt has four runways. Rather the origin-destination market, with London as a 'world city' and the high population of the South East region; supports the network of short and long haul services.

Cities such as Amsterdam and Frankfurt with hub airports have populations far less than London. Amsterdam has a population of only 821,000<sup>19</sup>, albeit serves a catchment area that encompasses one of the most densely populated countries in the world with the Netherlands population of over 16 million<sup>20</sup>. Frankfurt has a population within its metropolitan area of 2.6 million<sup>21</sup>, only Germany's fifth largest city<sup>22</sup>, although it is a hub airport for the most highly populated country in Western Europe. Compared to London however, with a population of 8.17 million, London is the most populous European city<sup>23</sup>, and there is double that population again, 8.6 million<sup>24</sup>, in the Greater South East region which the London airports serve. Therefore it could be argued that Amsterdam and Frankfurt are only able to support such dense route networks *because* they are hub airports with hub airlines. This is similar to Atlanta in the USA as Delta's hub; it is the busiest airport in the world with 89mppa in 2010<sup>25</sup> serving a metropolitan area with a population of 5.5

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<sup>16</sup> 'CAA Passenger Survey Report 2011', Civil Aviation Authority, 2011

<sup>17</sup> <http://www.schiphol.nl/SchipholGroup/Company1/Statistics/TrafficReview.htm> (accessed 18/06/13)

<sup>18</sup> [http://www.fraport.com/content/fraport/en/misc/binaer/press-center/facts-and-figures/jcr:content.file/zadafa-2012\\_e\\_lowres.pdf](http://www.fraport.com/content/fraport/en/misc/binaer/press-center/facts-and-figures/jcr:content.file/zadafa-2012_e_lowres.pdf) (accessed 18/06/13)

<sup>19</sup> <http://www.amsterdam.info/> (accessed 18/06/13)

<sup>20</sup> <http://www.amsterdam.info/netherlands/population/> (accessed 18/06/13)

<sup>21</sup> <http://www.aviewoncities.com/frankfurt/frankfurtfacts.htm?tab=population> (accessed 18/06/13)

<sup>22</sup> [http://goeurope.about.com/od/frankfurt/p/frankfurt\\_info.htm](http://goeurope.about.com/od/frankfurt/p/frankfurt_info.htm) (accessed 18/06/13)

<sup>23</sup> <http://www.londoncouncils.gov.uk/londonfacts/default.htm?category=2> (accessed 18/06/13)

<sup>24</sup> <http://www.ons.gov.uk/ons/rel/mro/news-release/census-2011-result-shows-increase-in-population-of-the-south-east/census-south-east-nr0712.html> (accessed 18/06/13)

<sup>25</sup> <http://www.aci.aero/Data-Centre/Annual-Traffic-Data/Passengers/2010-final> (accessed 18/06/13)

million<sup>26</sup>, but Atlanta is generally not regarded as a 'world city'. Dubai is rapidly becoming a major world hub for the state funded Emirates airline, but with an indigenous population of only around 2 million<sup>27</sup>, its growth is highly reliant on transfer passengers between Europe and Asia/Australasia connecting in Dubai.

It could be argued that London is a 'world city' that generates its own demand for flights and does not need a 'true' hub airport that is so dependent on transfer traffic to support its route network. This evidence would seem to support the vision of a dispersed model of multiple airports serving a major 'world city'. As well as providing competition and passenger choice, it also provides resilience with London less reliant on single airport, which is extremely disruptive when operations are restricted, for example in bad weather.

There are some examples of multiple airport systems in major 'world cities', although most of these involve non-competing airports. In the New York area, JFK is the largest airport with Delta and American Airlines, and whilst, there is some competition with Newark and its based airline United, for both international and domestic traffic, both airports primarily serve their own catchment area. New York's third airport, LaGuardia provides short haul services only. In the case of Tokyo, a second airport, Narita was built some 30 years ago to handle international traffic as the existing airport, Haneda had become full. Whilst Tokyo was once Asia's leading hub, it is now the seventh in terms of total traffic, which is largely due to the splitting of its airport operations.

However, there is academic research that supports multiple competing hubs that serve 'world cities' such as London and New York. De Neufville & Odoni (2003)<sup>28</sup> state that multi-airport systems exist in all the metropolitan areas that generate the largest amount of traffic, such as London and New York, and as a general rule multi-airport systems perform well for cities that are the largest generators of originating traffic, as can be seen with London's large origin-destination (O-D) market. They state that airports compete with each other for traffic and services; and the dynamics of this competition lead to concentration of traffic at the primary airports and volatile traffic at the secondary facilities. These effects can be seen in London with Heathrow as the main hub and the more volatile traffic, i.e. charter and low cost, at Gatwick, Stansted and then other secondary airports such as Luton and now more recently at Southend. However, until recently this was due to competition between airlines in their own markets, rather than competition between airports as Heathrow, Gatwick and Stansted were all owned by BAA. Since BAA was forced by the Competition Commission to break up the monopoly and sell Gatwick and Stansted, more competition between the airports is now beginning to be seen; and could significantly change the airport market in London and the South East.

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<sup>26</sup> <http://www.atlanta.net/visitors/population.html> (accessed 18/06/13)

<sup>27</sup> <http://www.dsc.gov.ae/EN/Pages/DubaiInFigures.aspx> (accessed 18/06/13)

<sup>28</sup> De Neufville, R. & Odoni, A. (2003) Airport Systems: Planning, design and management. McGraw-Hill, New York.

**Q12: Could the UK support more than one focal airport? For example, could an airline of alliance establish a secondary hub outside London and the South East, for instance in Manchester or Birmingham?**

The UK could support more than one focal airport, with an airline or alliance establishing a hub away from Heathrow; however it is more likely that this would be at another London/South East airport due to the size and nature of demand in the London/South East origin-destination (O-D) market.

British Airways (BA) holds the largest number of slots at Heathrow with 50.6% of the summer 2013 schedule<sup>29</sup>. This is the first summer season for which BA has held more than half of the slots and its increase from 44.1% in summer 2012 is due to the acquisition of bmi. This is matched by a significant growth in Virgin Atlantic's share, mainly due to the slot divestment for domestic services following BA's takeover of bmi. In summer 2001, BA held 36% of the slots and, by summer 2012, this had grown to 44.1%. BA's weekly slot holding in the summer season grew by 16% over the 11 year period; while capacity constrained Heathrow saw almost no growth in slots (less than 3%). Therefore BA and the Oneworld alliance dominate Heathrow.

Whilst the other alliances, Star and Skyteam, are investing significantly in Heathrow to operate out of their own terminals, the new T2 and refurbished T4 respectively, if their ability to grow is limited by a lack of runway capacity, with BA/Oneworld dominating the slots on the existing two runways; there is the possibility that in the future one or both of these other alliances may seek to relocate their hub operations to Gatwick (with a second runway) or even Stansted (with a second runway); where there would be available slot capacity. Given that most interlining passengers are intra-alliance transfers, airline alliances could base themselves at different airports in order to compete more effectively. This is very different to previously unsuccessful attempts to operate Gatwick as a hub airport with a single airline, British Airways, splitting its hub operations between Heathrow and Gatwick. A new competitive hub airline market would be created in the UK which could challenge the dominance of British Airways and Heathrow. Benefits to passengers arise through providing increased choice of airport which may incentivise airlines and airports to drive down prices and improve customer experience.

In regards to a secondary hub outside of London, Birmingham Airport will have the opportunity to attract some of the London/South East market once connected via high speed rail. Phase 1 of High Speed 2 (HS2) between London and Birmingham is planned to open in 2026. This will include the Birmingham Interchange Station which will be around one mile from Birmingham Airport, to which it would be linked by a people mover. This will be served by 3 trains per hour (tph) from Euston with a journey time of 38

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<sup>29</sup> CAPA Aviation Analysis, Heathrow Airport's Slot Machine, May 2013

minutes. This is a shorter journey time from the capital to Birmingham Airport than is currently the case from Central London to Stansted. HS2 Phase 1 will also include an intermediate stop at Old Oak Common to connect with CrossRail and Heathrow Express. Birmingham Airport<sup>30</sup> estimate that the first phase of HS2 could bring more than three million additional people who live within key population centres to be within one hour of the airport by rail; bringing a total of six million, or a doubling today's total catchment, within an hour's travel time by rail. A further 2 million, or a 163% increase, will be within an hour's travel time by rail when Phase 2 of HS2 opens in 2033, reducing journey times between northern cities and the airport.

At present, Manchester has the greatest hub potential and has already developed a significant number of long-haul services. Feeder services to Manchester are provided from some of the UK's regions, e.g. Scotland, Northern Ireland etc. As yet, however, it does not have the critical mass required to develop long-haul to long-haul transfer traffic<sup>31</sup>.

However, the DfT forecasts<sup>32</sup> suggest that Manchester and Birmingham are likely to grow faster than any other UK airport unless additional runway capacity is provided at London airports. Some of this traffic could effectively be attracted away from the capacity constrained London airports. Nearly 800,000 passengers travelled between Manchester and Heathrow in 2012, through feeder services for Heathrow's long haul routes<sup>33</sup>, therefore if long haul flights were available from Manchester, its local demand, supplemented by feeder services into Manchester from UK regions, could provide long connectivity from a northern UK hub airport.

Manchester has significant spare runway capacity. In the short and medium term, there are no significant constraints and the addition of the Metrolink in 2016 will enable staff and passenger numbers to grow, particularly in the Airport City development, without adverse congestion impacts on the roads. Growth would be aligned with local and regional strategies. A new interchange station for Phase 2 of HS2, due to open in 2033, would provide direct links to Manchester Airport. This station would also give the wider Cheshire area easy access to the high speed rail network, both by public transport and by car<sup>34</sup>.

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<sup>30</sup> 'Helping Birmingham Airport become more accessible by rail from across Britain', Birmingham Airport, report by Steer Davies Gleave, June 2013

<sup>31</sup> 'Examination of possible long term options to improve capacity at UK airports', Alan Stratford and Associates Ltd, June 2013

<sup>32</sup> 'UK Aviation Forecasts', DfT, 2013

<sup>33</sup> 'Examination of possible short and medium term options to improve capacity at UK airports', Alan Stratford and Associates Ltd, June 2013

<sup>34</sup> 'Examination of possible short and medium term options to improve capacity at UK airports', Alan Stratford and Associates Ltd, June 2013

**Q13: To what extent is it possible to operate a successful 'constrained' focal airport by focusing on routes where feeder traffic is critical and redirecting routes which are viable as point-to-point connections to other UK airports?**

It is possible to free up capacity at a 'constrained' focal airport by focusing on routes where feeder traffic is critical and redirecting routes which are viable as point-to-point connections to other UK airports.

For example, if Gatwick was to develop as a hub or focal airport to compete with Heathrow, and did this primarily through attracting a network airline or airline alliance, in order to free up capacity for long haul flights and their short haul feeders; the low cost and charter market currently at Gatwick could be displaced to regional airports in the South East, for example Manston and Lydd airports in Kent. In the similar way in that Heathrow currently has no low cost carriers and holiday tour operator charter flights, this market segment which makes up a significant proportion of Gatwick's present slot allocation, could be displaced to regional airports to free up capacity that would be needed at Gatwick for long haul and short haul feeder flights if it develops as a rival hub or focal airport to Heathrow.

Manston Airport has significant spare capacity to accommodate displaced low cost and charter operators from the main London airports in a similar way to how Southend Airport attracted several based low cost carrier aircraft from Stansted in 2012 to operate point-to-point flights. Manston airport, which has a full length 2,748m runway, is able to cater for all modern jet aircraft. It's catchment area has an estimated 1.3 million people within one hour's drive time of the airport, with a substantially higher figure of 8 million passengers within two hours travel time from the airport<sup>35</sup>. Its catchment area overlaps with Gatwick, therefore there is the opportunity for the airport to accommodate some of the low cost and charter market demand that may be displaced from Gatwick if a hub airline or alliance was to relocate and take up slots at Gatwick.

In 2011, 8.4% or just over 2 million of Gatwick's passengers from the South East market originated from or were destined to Kent and Medway; and of the charter market at Gatwick, across the South East, 16.1% are from Kent and Medway<sup>36</sup>. If these passengers that currently travel from Kent and Medway to Gatwick could use Manston Airport, this would free up capacity at Gatwick and allow it to focus on long haul and short haul feeder flights so that it can compete with Heathrow. This would also allow Manston to grow as a regional airport and bring economic benefits to East Kent.

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<sup>35</sup> 'Manston – Kent International Airport: Master Plan', Infratil Airports Europe Ltd, 2009

<sup>36</sup> 'CAA Passenger Survey Report 2011', Civil Aviation Authority, 2011

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