

Discussion Paper 01 – Aviation Demand Forecasting: Response from Manchester Airports Group (M.A.G)

1. Introduction and context

- 1.1 M.A.G is the UK's second largest airport operator, handling in excess of 42 million passengers and 600,000 tonnes of freight per year, carried by over 80 airlines to around 220 destinations worldwide. We currently own four airports – Manchester, London Stansted, East Midlands and Bournemouth.
- 1.2 Our recent £1.5bn acquisition of Stansted was funded in part through IFM taking a 35.5% stake in M.A.G. IFM is a global investment management firm that holds over \$40 billion in funds across a range of asset classes. It has interests in 13 airports in the UK and Australia. Manchester City Council (35.5%) and the 9 Manchester District Councils (29%) retain the balance of the equity.
- 1.3 The development of robust traffic forecasts is a critical part of the process that will be followed by the Airports Commission. The forecasts will be used to quantify in broad terms the future level of demand for air travel, connectivity requirements and the nature of demand. They will enable a range of options for meeting that need to be considered and assessed, and the impacts on consumers and UK economy of various courses of action to be tested and understood. They will ultimately be used to inform the decisions on the scale, timing and nature of any future capacity, as well as informing how existing capacity both in London and the rest of the UK can be best used.
- 1.4 M.A.G welcomes the opportunity to submit evidence in response to Discussion Paper 01 – Aviation Demand Forecasting. Our submission sets out a number of general points for consideration in Section 2 below, before answering the individual questions in Section 3.

2. Overall points

- 2.1 The Commission's Discussion Paper 01 sets out a useful summary of how demand forecasting has been used in aviation, and in particular the historic relationship between GDP growth and UK passengers. In developing new forecasts to inform the Airports Commission, we suggest that the points set out below are considered.
- 2.2 A **positive outlook** is required to ensure that we develop recommendations that are capable of supporting sustained economic growth. The traffic forecasts will be prepared within the context of recovering from a deep recession, low growth projections and an ongoing policy of deficit reduction. There is spare capacity which, when growth returns, is likely to be taken up quickly. Detailed consideration of the scale and nature of the 'bounce' economic growth will be necessary.
- 2.3 The 2003 Air Transport White Paper assumed that the first new runway in the South East would be needed by around 2012 (at Stansted). Clearly the need for

additional capacity has been reduced in the short term by the recession. However, whilst delivery of infrastructure can be deferred in response to a slowdown in demand, it cannot easily be accelerated.

- 2.4 In such circumstances, there is a strong rationale for adopting forecasts above the 'most likely' mid-point as the base case for policy development, given that runway capacity could well be required sooner than the DfT's most recent central forecasts would suggest. It could also be argued that there is economic value associated with having spare airport capacity, given its ability to support the development of airline and airport competition.
- 2.5 That said we also recognise the need for a reasonable view of demand, so as not to cause unnecessary blight. The forecasts should be used to focus the policy debate around defining the best range of options/potential outcomes.
- 2.6 At this stage, it is worth bearing in mind that the forecasts will not be used to underpin an investment decision by a private company or a public authority. Rather, they are being developed to understand and test different approaches to meeting demand for air travel and providing international connectivity, and to test the wider economic and environmental impacts of one option over another. However, it will be important to identify the level of accuracy (and granularity) that is required now, and that that is required later.
- 2.7 As well as reflecting the broader UK economy, the forecasts should reflect the specific policy objective of engaging and growing trade with key **emerging markets**. Traffic flows from the UK to emerging markets such as China and India will grow at a significant multiple to underlying GDP growth. As a cross check, forecasts need to reflect the future connectivity that the UK economy needs to succeed.
- 2.8 The potential for demand to be driven by **future improvements in cost efficiencies and technology** should also be considered. Such improvements need not necessarily be incremental. For example, the Boeing 787 and Airbus A350 should deliver a step change in route economics, by opening up new point-to-point route opportunities, and making previously unviable long haul services from UK regional airports a reality.
- 2.9 The forecasts should also consider **commercial trends in the air transport sector**. There is likely to be a continued trend of LCC airlines taking market share from full service network carriers, delivering lower cost and lower fares, whilst full service airlines are likely to see greater consolidation and concentration at certain key hubs.
- 2.10 The emergence of the Gulf Hubs, Istanbul and, over time, hubs in West and East Africa will result in greater competition for UK (and European) hubs. In many cases these hubs will have a geographical advantage over European hubs, capacity to grow, and are served by airlines offering world class levels of service with lower unit costs. These trends need to be reflected in the forecasts, particularly when

considering the scale and nature of hub connectivity in the UK.

- 2.11 The forecasts also need to reflect the fact that the UK should be **making best use** of its airport infrastructure. We believe that there are a number of policy levers which would support this objective, most notably differential APD levels for both existing and new long haul routes. This could encourage greater use of regional airports from key cities in emerging markets, increasing economic activity in the regions they serve as well as reducing pressure on airports in the South East.
- 2.12 Finally, the forecasts should reflect the **new competitive environment** in which airports operate. At the time of the Air Transport White Paper, the three largest airports in the South East were under common ownership and managed as a system. The new commercial reality is that airports in the South East now compete for airlines and passengers, through both aeronautical discounting and significant investment infrastructure to improve customer service and operational resilience.
- 2.13 Competition is an inherently dynamic and unpredictable process, and it will be difficult for forecasting models to capture with any real confidence how it will unfold in the long term. For this reason, we would encourage the Commission to adopt an approach which avoids placing undue weight on the predictions of forecasting models when considering how demand is likely to be allocated in the future; to do so could well harm the development of competition to the detriment of consumers.
- 2.14 Section 3 below sets out our answers to the individual questions.

3 Questions

To what extent do you consider that the DfT forecasts support or challenge the argument that additional capacity is needed?

- 3.1 The forecasts provide a good starting point for a consideration of capacity issues in the UK airport industry. However, the forecasts in themselves do not provide the richness of information needed to robustly evaluate the pros and cons of different capacity options.
- 3.2 The DfT forecasts highlight some potential impacts of different capacity options in relation to passenger traffic across different airports. However, the forecasts only provide basic insights into the implications in relation to (for example) the number of key business destinations served from the UK (as a whole) or key business destinations from different UK regions.
- 3.3 In this submission, we present some thinking on how the DfT forecasts could be complemented with supplementary analysis that will provide richer input into the consideration of alternative policies.

What impact do you consider capacity constraints will have on the frequency and number of destinations served by the UK?

- 3.4 Clearly there is a relationship between capacity constraints and service breadth and depth. However, the interaction is quite subtle and influenced by a range of other factors such as changes in business model of key airlines. The relationship is not necessarily a linear one.
- 3.5 We recommend that this is an area to explore in more depth than is currently addressed in the DfT forecasts. It is important to adopt more nuanced metrics that:
- Distinguish between these metrics at a national level and a regional level (where direct services or services to hubs are a much more important factor for regions than the range of destinations from London); and
 - Recognise that the total number of destinations served from the UK (or from the London system) is a more relevant metric than the number of destinations from a hub airport alone.

How effectively do the DfT forecasts capture the effect on UK aviation demand of trends in international aviation?

- 3.6 With the exception of transfer traffic (see comments below) we consider the national DfT forecasts to be a reasonable starting point. No forecast approach can capture all relevant variables, but within the context of a topdown forecast, we believe the approach is sensible and comprehensive.
- 3.7 However, greater consideration needs to be given to supply side issues to complement the topdown/deterministic approach of the DfT forecasts. This is especially important in the context of traffic allocation between airports. We develop this theme further in responses to other questions below.

How could the DfT model be strengthened, for example to improve its handling of the international passenger transfer market?

- 3.8 The shortcomings in the current approach are recognised. Given the maturity of the UK market, the underlying growth in the vast majority of international-international flows will be faster. Furthermore, the existing UK share of connecting markets is heavily influenced by historical constraints (both hard – e.g. runway capacity -and soft – e.g. terminal layout at Heathrow) as well as historic links between UK and other countries such as US, Canada, India, Australia and Hong Kong.
- 3.9 We believe that forecasts of the transfer market should be segmented into key connecting flows (e.g. Western Europe-North America) and the UK's potential traffic from this individual market forecast under a range of scenarios. This would require:
- Analysis of existing market size for each flow (from analysis of MIDT data);
 - Further segmentation into markets that are served direct and those lacking a direct service;
 - Forecast of future underlying growth for each individual flow (based on similar economic driver type approach);
 - Development of "fair share" estimates for competing connecting hubs / direct

services, using a Quality of Service Index type approach. This will change over time, especially as hubs gain greater critical mass of services on the one hand, whilst underlying market growth and technology enable great point to point (hub by pass) traffic to be sustained on the other; and

- Estimates of impact of capacity constraints at UK and international hubs – and conversely the impact of additional capacity in the UK which will enable UK airports and airlines to capture traffic which is hubbing elsewhere.

What approach should the Commission take to forecasting the UK's share of the international aviation market and how this may change in different scenarios?

- 3.10 See above – UK market share of 'footloose' transfer traffic cannot be assessed by the DfT model alone. Consideration is necessary of the changing nature of hub flows and of the growth of point to point hub by-pass flows.

How well do you consider that the DfT's aviation model replicates current patterns of demand? How could it be improved?

- 3.11 The main area which we consider no forecast model can adequately reflect is allocation of demand between airports. In our view, there is no such thing as a 'natural' market share between airports, rather a range of potential outcomes.
- 3.12 Market share is inherently unstable, and fluctuates considerably for both local and transfer traffic. Airport and airline competition drive changes in market share. This is especially the case in the UK, where airports have overlapping catchment areas.
- 3.13 The emergence of low cost carriers and the relative decline of charter had major impacts on the distribution of demand between airports. Routes which were not previously viable at smaller airports became sustainable with low cost carriers, with corresponding impact on market share.
- 3.14 Other factors which have influenced traffic distribution include the evolving strategy of British Airways (e.g. greater focus on London), the changes in the regional airline sector, increases in Air Passenger Duty (particularly affecting regional domestic traffic), and the improvement in the West Coast Mainline rail service.
- 3.15 The DfT model only seems to include HA sponsored schemes in terms of changes to transport networks. In the case of Manchester, there are some non HA schemes that are very beneficial. That may mean the model understates access time/constraints. It is also unclear how the model deals with public transport connectivity - and changes. Improvements in rail access to Stansted, the development of Cross Rail and HS2 will all have a material impact on the relative attractiveness of airports, and on patterns of demand.
- 3.16 In Figure 1, the change in market share of traffic between the London airports is illustrated. These changes have been driven by a range of supply side factors, including:

- Capacity constraints at Heathrow (and traffic spill to other London airports);
- Changes in the structure of the short haul market, with the emergence of low cost airlines; and
- A 'system' approach to the development of capacity where, under common ownership, BAA sought to maximize throughput of its London airports by encouraging traffic to spill from one airport to another.

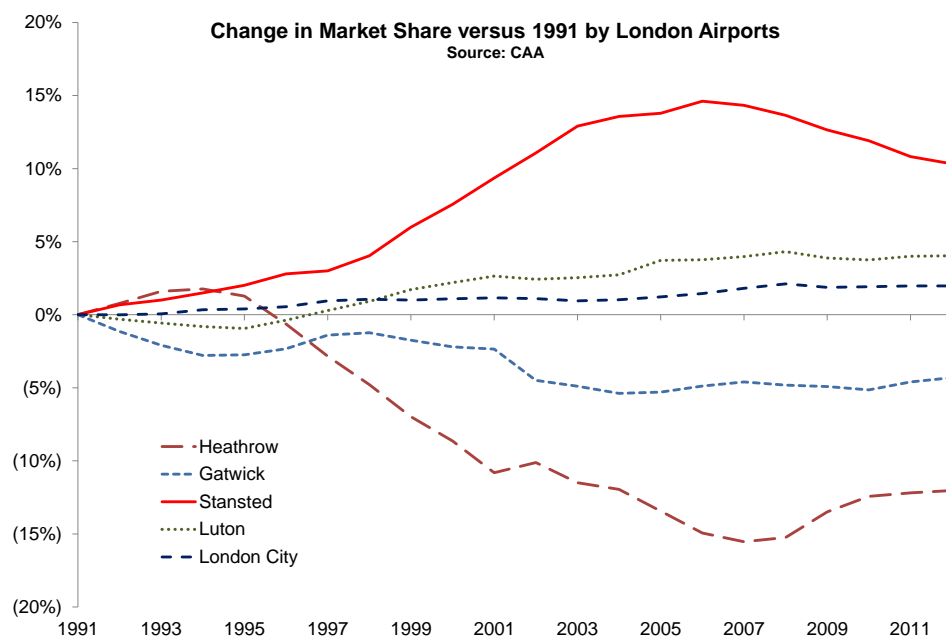


Figure 1 – Change in Market Share versus 1991 by London Airport

- 3.17 It is probable that independent ownership of the three largest airports would have resulted in a different profile of market share to that which emerged.
- 3.18 In the North of England, the emergence of Liverpool and Leeds as low cost airports, and the opening of Doncaster Airport resulted in a decline in the market share of Manchester. However, this trend has been reversed in the last couple of years as M.A.G has sought to recapture lost market share through proactive engagement with key low cost airlines.

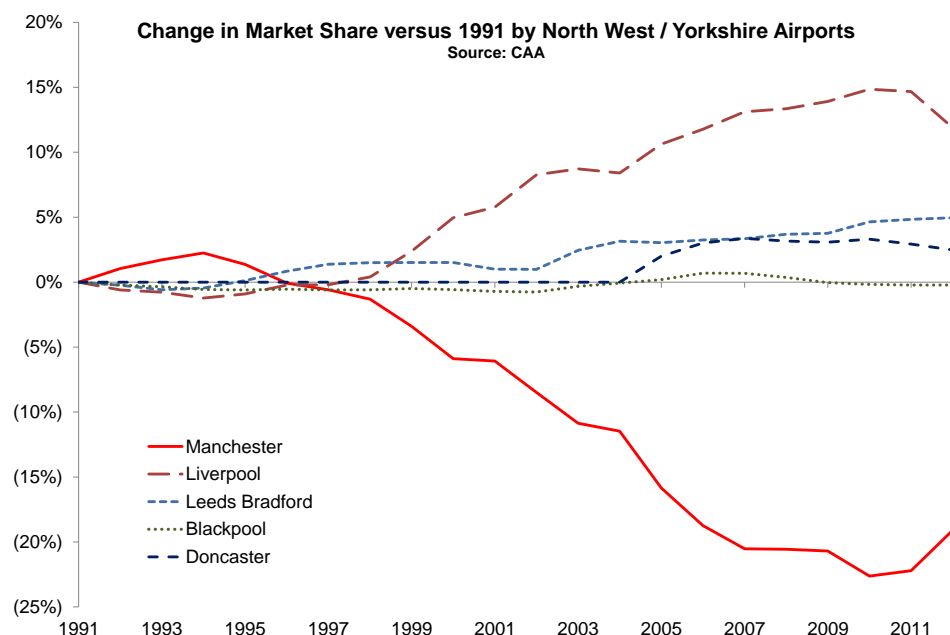


Figure 2 – Change in Market Share versus 1991 by North West/Yorkshire Airport

3.19 In the future, we do not consider it possible to model all the factors that may emerge to influence market share. Therefore, it is important any policy decisions reflect this uncertainty (as well as the uncertainty acknowledged in relation to national forecast traffic levels). However, previous traffic forecasts from DfT have not been accurate in relation to demand allocation between airports.

Do you agree with the source of the input data and assumptions underpinning the DfT model?

3.20 We consider the input data and key assumptions to be sensible. However, assumptions on new runway capacity options should take into account the impact on aeronautical pricing that may result, and the impact of that pricing on demand.

Do you agree with the choice of outputs modelled?

3.21 Yes, but as mentioned previously, we think the forecast outputs would benefit from complementary analysis of supply side issues – particularly in relation to transfer flows which use UK airports, but are footloose, and could just as easily use airports in Europe or Middle East.

Do you consider that the DfT modelling approach presents an accurate picture of current and future demand for air travel? If not, how could it be improved?

3.22 At an aggregate level, the DfT model is likely to provide a reasonable assessment of UK demand. However we are not confident that the demand allocation model is effective in predicting outcome of competition between airports. Caution should be applied in interpreting these results – as the DfT has previously recognised in the changes that have been made to the way in which the model works.

3.23 In addition, the DfT model uses the current volume, distribution and profile of traffic as a base for developing forecasts. Looking to the past may not provide accurate guide to the future. The Commission should therefore not attach too much weight to the predictions of the allocation model, given that these are based on the past patterns of behaviour that have been established over many decades. These patterns were formed by:

- Common ownership which focused on operating the London Airport's as a system.
- A historic legacy of bilateral constraints which resulted in long haul traffic in particular being concentrated at Heathrow;
- Traffic Distribution Rules and bilateral agreements such as Bermuda 2 which distorted the distribution of traffic in the London system;
- Different commercial strategies followed by airlines, ranging from BA's concentration on Heathrow to Low Cost Airlines which have sought to serve a wide range of markets on a point to point basis;
- Aircraft technology and range (which continue to evolve);
- The lack of Middle East hub (and carrier) competition;
- The lack of consolidation (until recently) of full service carriers; and
- The relatively recent development of low cost carriers (last 15 years) compared to the sector's relative maturity in the United States.

3.24 There are many reasons to believe that these patterns will continue to change and evolve. They will have shifted significantly by the time a new runway will be delivered, particularly given the LCC revolution is not over. In addition new long haul airlines with new commercial strategies are changing the way hub and spoke networks operate.

Is the DfT model suitable to underpin an assessment of the UK's aviation connectivity and capacity needs?

3.25 Building on our previous answer, we believe that the DfT model is a suitable input into the evaluation of UK aviation connectivity but needs to be supplemented with qualitative / supply side issue analysis. For example, the following issues should be considered alongside the 'raw' DfT model outputs when evaluating the potential implications for connectivity and capacity needs (a non-exhaustive list):

- Future development of key airline segments e.g. future of regional operators, possible emergence of low cost long haul, consolidation of European flag carriers, and continued influence of Gulf carriers;
- Impact of new aircraft technology on how demand is served (e.g. hub and spoke versus point to point hub bypass);
- Price competition between airports;
- Interconnected nature of infrastructure investment at competing airports;
- Business case for new infrastructure investment;
- Centralised South East versus devolved regional model for aviation; and
- Single hub versus complementary hubs.

What alternative or complementary approaches could be used to assess the impact of international competition?

What factors, if any, are missing from the DfT's modelling approach? How can these be

more effectively analysed?

3.26 These are discussed above.

Is the DfT model granular enough to underpin the Commission's assessment of future demand?

3.27 As discussed, the forecasts could benefit from supplementary supply-side analysis, although we would not envisage this being incorporated directly into the DfT model.

Does the DfT approach to demand uncertainty capture a reasonable range of uncertainty? Could the approach be improved? Would a probability based approach to dealing with uncertainty help the Commission to test the robustness of the model's outputs?

3.28 In our opinion, a reasonable range of uncertainty is captured and the overall approach is sensible. This could be supplemented by an analysis of the impact of extreme developments which have long term implications on the forecasts.

We have reviewed four alternative forecasts. Do you consider that there are others we should be looking at and why?

3.29 We consider the main industry forecasts to have been reviewed. However, a more in-depth comparison between the sets of forecasts would be useful (both in relation to input assumptions and output assumptions).

4 Conclusion

4.1 It is to the Commission's credit that it is asking fundamental questions on the way in which DfT produces traffic forecasts, and that it recognises the inherent uncertainties of forecasting demand for air travel. We are confident that following this 'first principles' approach will result in a robust set of forecasts on which the Commission can base its work.

4.2 We are keen to ensure that any forecasts:

- Reflect the new competitive landscape in the South East;
- Reflect that the airline industry is rapidly evolving, and that historic structures are changing; and
- Are flexible enough to enable consideration of different capacity options, and also of the need to make best use of existing infrastructure both in London and in the regions.

4.3 M.A.G will be retaining a leading forecasting advisor to inform the development of its submissions. We would be delighted to have further opportunity to engage with the Airports Commission on this important issue.

M.A.G

15th March 2013