

# Don't put all your eggs in one basket

## A challenge to aviation orthodoxy

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# 1 Executive Summary

Aviation demand is booming, particularly in new markets. But instead of consolidating around traditional hub-and-spoke trunk lines, the twenty-first century will be defined by a greater frequency of point-to-point services connecting new city pairs.<sup>1</sup>

This report analyses existing trends within the global aviation industry and demonstrates how they challenge orthodox opinions about aviation policy in the UK. It argues that in order for Britain to capture the economic benefits of changes in global travel, the UK must have an aviation industry with the resilience and the capacity to satisfy future growth. To achieve this, the government should pursue a balanced aviation strategy that allows businesses and customers across the whole of Britain to connect to the most dynamic and fastest growing markets in emerging economies.

The first chapter identifies trends in global travel. The trends are clear. The next twenty years will be defined by a boom in middle class tourism from developing economies, footloose international labour flows and a voracious appetite for international trade. Supply-side innovations, like market liberalisation and airline strategies, will stimulate further demand for passenger traffic.

The next chapter contextualises the trends identified in the previous chapter and argues that the industry is moving away from hub-and-spoke demand management towards fragmentation and point-to-point services. Aviation policy must recognise this shift in emphasis and factor it into policy considerations.

The following chapter argues that the failure to respond to trends in global travel is harming the British economy.

The final chapter brings the previous arguments together and makes the case for a balanced aviation strategy in the UK.

# 2 Trends in global travel

The single largest feature of global travel over the past 70 years has been increased demand. Global GDP has grown at an average of 3% and passenger air traffic has grown at an average of 5%. The outlook for air traffic demand suggests growth looks likely to remain at this level for the next twenty years.

That is not to say that the current economic climate has not impacted aviation. Having grown at just above 5% per year in the 8 years to 2008, passenger traffic fell by 2% in 2009. However, the industry bounced back in 2010 and grew at 6% in 2011.

Global GDP is projected to increase by 3.3% over the next two decades and there is little evidence to suggest that long term aviation demand will not behave as it has previously. It is widely accepted within the industry that worldwide passenger traffic will return to its long-term trend growth rate and increase at 5.1% per annum, with cargo traffic growing at 5.6% per annum, to 2030.<sup>2</sup>

**Table 1 Forecast change in world market developments 2010–2030**

	Forecasted average growth
Economic growth (GDP)	3.30%
Passenger numbers	4.20%
Airline traffic (RPK)	5.10%
Cargo traffic (RTK)	5.60%

Department for Transport forecasts show a similar picture for the United Kingdom with million passengers per annum (mppa unconstrained) growing from 211 mppa in 2010 to 335 mppa in 2030 and 470 mppa in 2050.<sup>3</sup>

## 2.1 Three demand-side drivers of growth

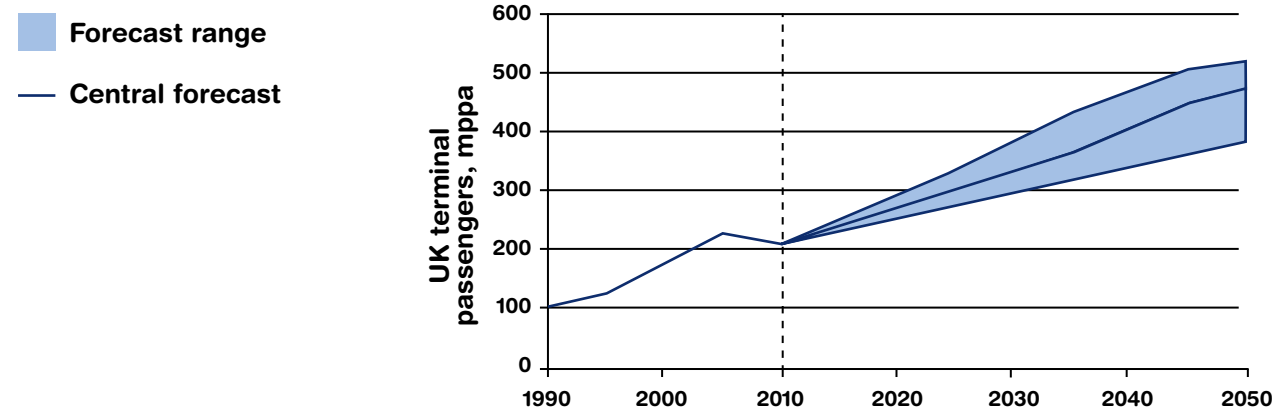
### 2.1.1 Tourism

In 2011, the United Nations World Tourism Organisation (UNWTO) concluded that the tourist “sector [was] directly responsible for 5% of the world's GDP, 6% of total exports and employed one out of every 12 people in advanced and emerging economies.”<sup>4</sup>

The main socio-economic group behind this growth is the middle-classes, especially in developing economies. These ‘new’ tourists, such as the present surge in Chinese visitors to Britain, contribute upwards of £1,000 to the visiting economy per person, per visit.<sup>5</sup> As their incomes continue to rise their horizons become even wider. The combination of disposable incomes, low cost carriers (LCCs) and greater choice is a powerful driver of future air passenger demand.

Despite the impact of the recent global recession, political turmoil and natural disasters, growth is forecast to continue at around 3% per annum. Emerging economies will lead the way with stronger growth in Asia and the Pacific and Africa (4% to 6%), followed by the Americas and Europe (2% to 4%) and then the Middle East (0% to +5%).<sup>6</sup>

**Table 2 Department for Transport aviation forecasts**



The year 2010 saw 11.7m holiday visits to the United Kingdom.<sup>7</sup> 37% of these visits were for holidays in parts of the country other than the south-east, yet a majority of people visiting the UK landed in south eastern airports.<sup>8</sup> In 2010 28m passengers landed at the 4 main south-eastern airports whose destination was not in the south east.<sup>9</sup>

However, the UK exports more tourists than it imports and it will need to overcome this ‘tourism deficit’ if it wants to benefit from the growth of the industry.

### 2.1.2 Migration

International labour migration flows have followed the trend within business management towards outsourcing and offshoring. As goods and services are increasingly multinational, there has been a concurrent rise in the need for flexible labour. The modern worker needs to be able to fly in and out of different markets at short notice. The demand for increased mobility is most notable between developed economies and developing economies. As their production chains become increasingly integrated “into the international value chain, the automatic consequence is flights over longer distances”.<sup>10</sup>

Projections by the Global Business Travel Association (GBTA) indicate that the number of business trips in 2011 increased by 2.1%, reaching 446.5 million, with a 7.6% increase in spending, to \$251.9 billion. “Although the economic recovery is still modest, [GBTA] see business travel remaining healthy and growing at a steady rate that outpaces GDP growth.”<sup>11</sup>

The Department for Transport points to this trend in its aviation forecasts: “The UK population is projected to grow to around 70m by 2030, so 85m international

and 11m domestic return journeys implies an average of a little over one return air journey per UK resident in 2030. This compares to just under one return journey per UK resident, and 20m visits by foreign residents in the model base year, 2008”.<sup>12</sup>

### 2.1.3 International trade

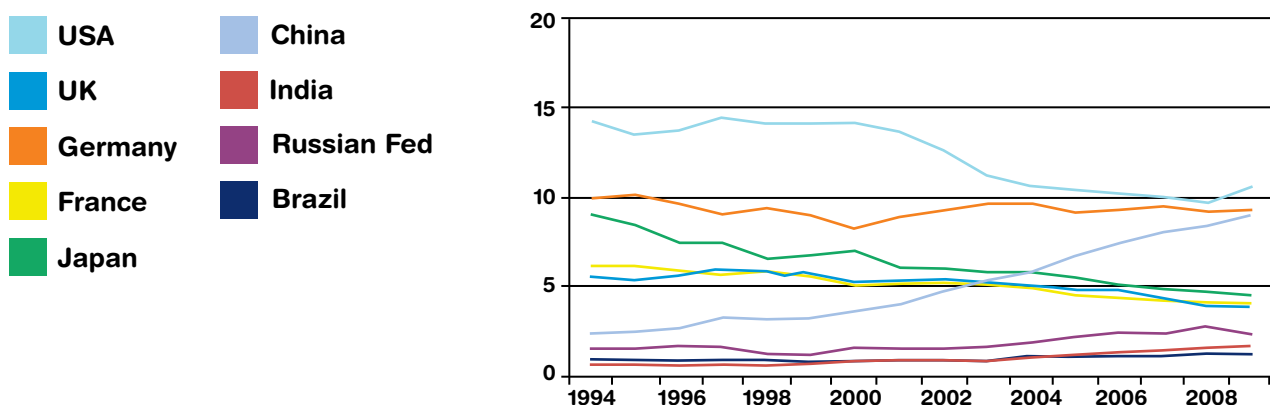
The most recent period of globalisation has been characterised by the removal of trade barriers and the integration of the global marketplace. Underpinning these processes has been the loosening of capital movement restrictions, and the boom in Asian exports based on the horizontal disintegration of multinationals’ supply chains. In the past, the manufacturing, marketing, financing and operational headquarters of a manufacturing firm were all in the same country.

In practical terms, a great example of the internationalisation of supply chain and manufacturing is Apple’s iPhone. It was designed in California, runs a chip designed in Cambridge, uses components from South Korea, Japan and Germany, and is constructed in China.

The impact of freer markets and closer business ties is demonstrated by the fact that the growth in the volume of world trade outstripped the growth in global GDP 1990–2010, the former growing at 6%, the latter growing at 3.1%.<sup>13</sup>

The boom in international trade has pushed demand for air travel for two main reasons. First, the integration of global supply chains increases the demand for business trips. Secondly, the introduction of just-in-time production processes has made air transport the mode of choice as more and more business seek to rationalise and increase productivity.

**Table 3 Share of world exports of goods and services (%)**



The World Trade Organisation predicts that the volume of international trade will continue to grow at its long-term trend rate of 6%.

The UK is already performing badly against its competitors, with a declining share of world exports (see Table 3).

## 2.2 Three supply-side drivers of growth

The remaining growth in air travel, around 30%, is likely to arise from supply-side changes. These changes fall into three categories: technological innovation (better planes), airlines strategy and market liberalisation.

### 2.2.1 Better planes

To meet the rigid requirements of the modern market and make the most of a market forecasted to be worth \$1.7 trillion by 2020, the aviation industry has been building aircraft that are quieter, less polluting and more economical.<sup>14</sup>

The jewel in the crown for Airbus is the A380 whose primary aim is to carry as many passengers as far as possible. To ensure it delivers economies of scale, it has been built to carry upwards of 550 passengers, 30% more passengers than the old jumbo B747. It also uses 12% less fuel, has less noise emissions and functions at a 15–20% lower operating cost than the old jumbo.<sup>15</sup>

In comparison, Boeing has developed the 787 Dreamliner, “an efficient mid-sized cruiser able to carry 200–250 passengers on long-range routes capable of bypassing congested hubs because of its intercontinental range of 15,700km (8,500nm)”.<sup>16</sup> The recent decision by Airbus to construct the A350 is an admission that the point-to-point market will be highly profitable in the future.

All of these aircraft allow the industry to operate on a lower average cost curve.

### 2.2.2 Airline strategy

Over the last decade, the industry has boomed on the back of the ongoing market penetration of the LCCs and there are currently about 60 LCCs offering their services in Europe. According to the Association of European Airlines (AEA), LCCs currently hold a 30% market share in terms of seat-kilometres in Europe;

the passenger share is close to 20%.<sup>17</sup> Many observers expected that this growth would lead to market consolidation, but this has failed to occur because the market entry barriers for newcomers are relatively low (e.g. availability of staff, favourable conditions for aircraft leasing). When there is strong competition between airlines, prices can fall and the choice in destination can increase. Both of these stimulate aviation demand.

### 2.2.3 Market liberalisation

Aviation liberalisation stimulates competition, giving passengers more choices and generally lowering ticket prices, which increases demand for air travel. It is also the primary supply-side driver of the international air transport market. In the past, agreements linking an airline’s traffic rights to the nationality of its owner were obstructing mergers in the industry. However, the trend towards liberalisation, which began in the USA in the late 1970s, has given rise to a “bump” in traffic demand. The deregulation of bilateral agreements via open air treaties has resulted in greater competition between airlines and airports. Industry research suggests that “as the relative openness of a country’s bilateral air service rises from the 20th percentile to the 70th, the resulting increase in traffic can boost air travel demand by an additional 30 per cent”.<sup>18</sup>

## 2.3 Conclusion

Global trends in aviation demand are setting tough challenges for the aviation industry, particularly in the UK.

What seems certain is that the world economy’s growth will not be diverted to Britain’s shores if government policy does not change. Tourism, trade, migration and technology all present tremendous opportunities to add to the UK’s trend rate of growth but, as a country, our aviation strategy has failed to respond to these developments in as effective a way as our competitors.

By failing to capitalise on the capacity already available at regional airports, the UK government is excluding many UK businesses in the Midlands, the North and Scotland from being on a level playing field. UK manufacturers not only compete with each other but they compete with, for example, German, Chinese and American firms. By not delivering an aviation strategy that is balanced across the country, the UK is sending its firms onto a skewed pitch.





Economic growth, induced directly and indirectly by improved air services, creates a virtuous circle that leads to further air transport growth. To enter this cycle, the government must have a clear vision of its country's future. Then it must show the leadership to enable businesses to deliver its vision.

Regional airports have the spare capacity to immediately play a role in attracting the dividends of world trade and tourism to the UK.

# 3 How aviation is responding to trends in global travel

**The previous chapter explained that demand for aviation will continue to grow, with the potential to create a significant capacity gap. The challenge for policy-makers is to address this issue in a way that protects jobs and prosperity.**

For its part, the aviation industry is divided in its analysis of the problem and the solution. For the sake of shorthand, we might call the two approaches (i) 'demand-led' and (ii) 'consumer-led'.

The 'consumer' group consists of the manufacturer Boeing, airports like Chicago and Birmingham and airlines like American Airlines who take a passenger-centric view of the market. Their research argues that travellers want more non-stop flights to long-range markets on a more cost effective smaller aircraft.

In contrast, the 'demand' group consists of industry figures from Airbus, BAA and British Airways who have sought to reinforce the hub model and invest in demand management. This group argues that factors such as growth in demand, downwards pressure on costs, slot shortages at key airports and an increased dependence on hubs and alliances will push airlines towards larger aircraft.

## 3.1 Response 1: The hub-and-spoke model's delivery for consumers is being questioned

The case for the hub-and-spoke model based on large airports, serving the world's dense trunk routes at the busiest travel times, rests on two assumptions.

First, they assume that there is a cost advantage by creating critical mass by bundling traffic. This, along with code-sharing via airline alliances, can lead to high load factors and greater utilisation of capacity.

Second, they assume a hub gains its competitive advantage over other airports by offering passengers a greater choice of departure times and destinations.

Based on the strength of these two factors, traffic between one of the best served global routes, London to New York, is predicted to triple by 2030.<sup>19</sup>

Clearly, the market for airports that serve the world's dense trunk routes at the busiest travel times will remain strong. However, the 'consumer' group would point to a range of factors that are limiting the ability of the hub-and-spoke model to deliver for 21st century consumers.

### 3.1.1 Complicated demand management leads to delays and rising costs

Big airports in megacities like Tokyo, Chicago and London act as collector and distributors between the origin and final destination points in the air travel system.

These larger airports can result in long stacking and taxi-times, which both lead to delays and greater noise and air emissions. These delays can lead to a knock-on cost effect.

For instance, a new analysis by the Aviation Week Group's *Aviation Daily* and partner Eclat Consulting shows that the cost to handle passengers in a hub-and-spoke-dominated system is as much as 45% higher than in a point-to-point system, a disparity that costs airlines billions of dollars annually.<sup>20</sup>

### 3.1.2 Deteriorating passenger experience

Delays and the compulsion to connect via large and congested airports generate significant negative externalities for the passengers. The concentration of connectivity forces millions of passengers to use surface access to reach larger airports. This increases congestion on the roads and rail systems and lowers labour productivity for business passengers who are short on time, rich on money. Services that bypass hubs in favour of secondary airports have a lower

social cost and generate positive externalities for the local and national economies they connect to.

Large UK airports are frequently cited as delivering poorer customer satisfaction. Long before the problems of long queues at border controls became an issue, Heathrow was cited as 99th of the 100 hub airports for customer satisfaction.<sup>21</sup>

### 3.1.3 Less competition

The dominant market position of the hub is reinforced by ever-increasing barriers to entry that reduce competition within the sector:

- Alliances and frequent flier programmes.
- Slot constraints at regulated airports.
- Restrictive bilateral trade agreements that ensure that national carriers only fly between capital cities.
- Sheer cost of building up critical mass in a market with dispersed demand.

### 3.1.4 More red tape

The existence of a dominant market player within an otherwise competitive industry requires increasingly complicated government regulation, such as the single till approach used by the Civil Aviation Authority which:

- Charges a landing price cap that fails to differentiate between different levels of demand and different revenue streams.
- Fails to generate a price that incorporates information about scarce capacity, constrained demand or environmental externalities.
- Means demand-based capacity expansions become less and less a question of economic rationality.

## 3.2 Response 2: Bigger planes are only part of the answer

The standard policy response to congested airports has been to attract larger aircraft. However, larger aircraft are not an effective remedy to congestion.

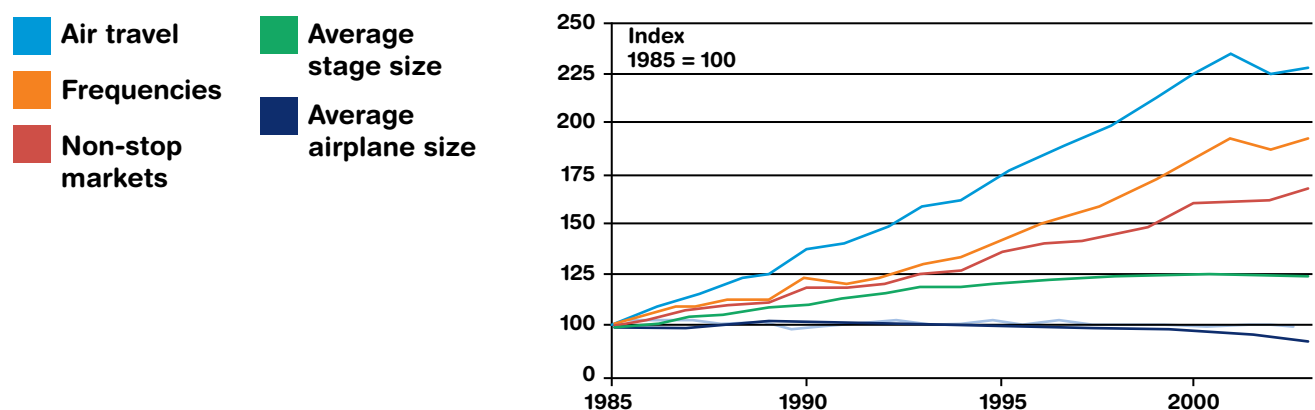
If we take a closer look at Heathrow, the results are particularly stark. In 2005, about 87% of Heathrow departures were aircraft with fewer than 300 seats. About 70% of those departures are aircraft with 200 seats or fewer. Increasing the size of the largest aircraft at the airport, which account for only 13% of the departures, could improve traffic by no more than 5%. Paradoxically, such an increase could make congestion even worse. About 40% of passengers who board large aircraft arrive on smaller aircraft. Therefore, increased use of larger aircraft could require an increase in small aircraft traffic to funnel connecting passengers to the hub. Going to even larger aircraft could make the situation even worse.<sup>22</sup>

Air travel growth has not led to larger aircraft. Table 4 shows that from 1985 – 2005 growth in aviation traffic has been met by increased frequencies and nonstop services, while average aircraft size has decreased.<sup>23</sup>

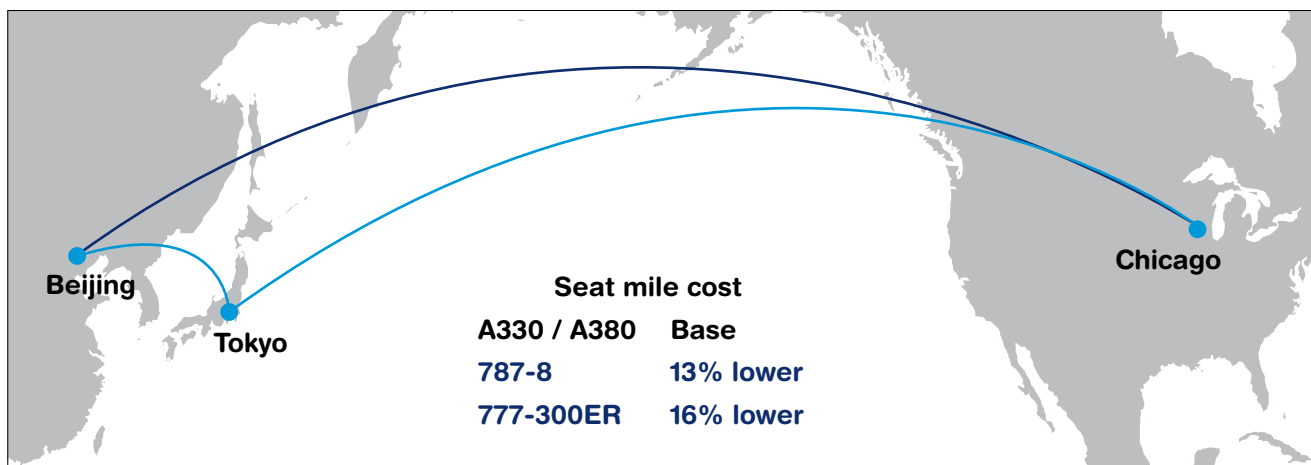
## 3.3 Response 3: Point-to-Point services can deliver more for consumers

It costs passengers less to fly non-stop. The argument for hub-and-spoke is that low fares are more important to passengers than scheduled or nonstop routes.

**Table 4 Growth in aviation traffic**



**Table 4 It costs less to carry passengers point-to-point**



The low seat-mile cost of the latest generation of long-range twinjets makes it less costly for airlines to fly passengers nonstop than to require unnecessary stops at hubs.

However, the total cost of carrying passengers from their point of origin to their point of destination is lower when passengers fly nonstop than when they have to change planes at a hub:

- Industry research shows that a hub-and-spoke structure requiring two flights for every destination incurs 2% higher aircraft handling and landing fees than nonstop service to the same destinations.
- Passenger connection costs for a two-flight routing are around 8% higher than direct routing.
- Once the passenger is locked into the hub, there are increased chances of expensive disruptions and delays, cancellations, and missed connections.<sup>24</sup>

As long as the cost differential favours point-to-point travel, the fragmentation of services and increase in nonstop flights will dominate the growth of air transport demand.

### 3.4 Conclusion

The growth of point-to-point service does not mean that hubs will disappear.

It simply means that passengers will have more convenient schedule choices and more opportunities to fly nonstop:

- For airlines, point-to-point service provides new opportunities to bypass hubs, reduce congestion and to operate hubs more efficiently.

- For passengers, they no longer have to change aircraft at an intermediate hub.
- For the industry, the concomitant liberalisation of aviation regulations has enabled the industry to offer more attractive choices to passengers at competitive fares.

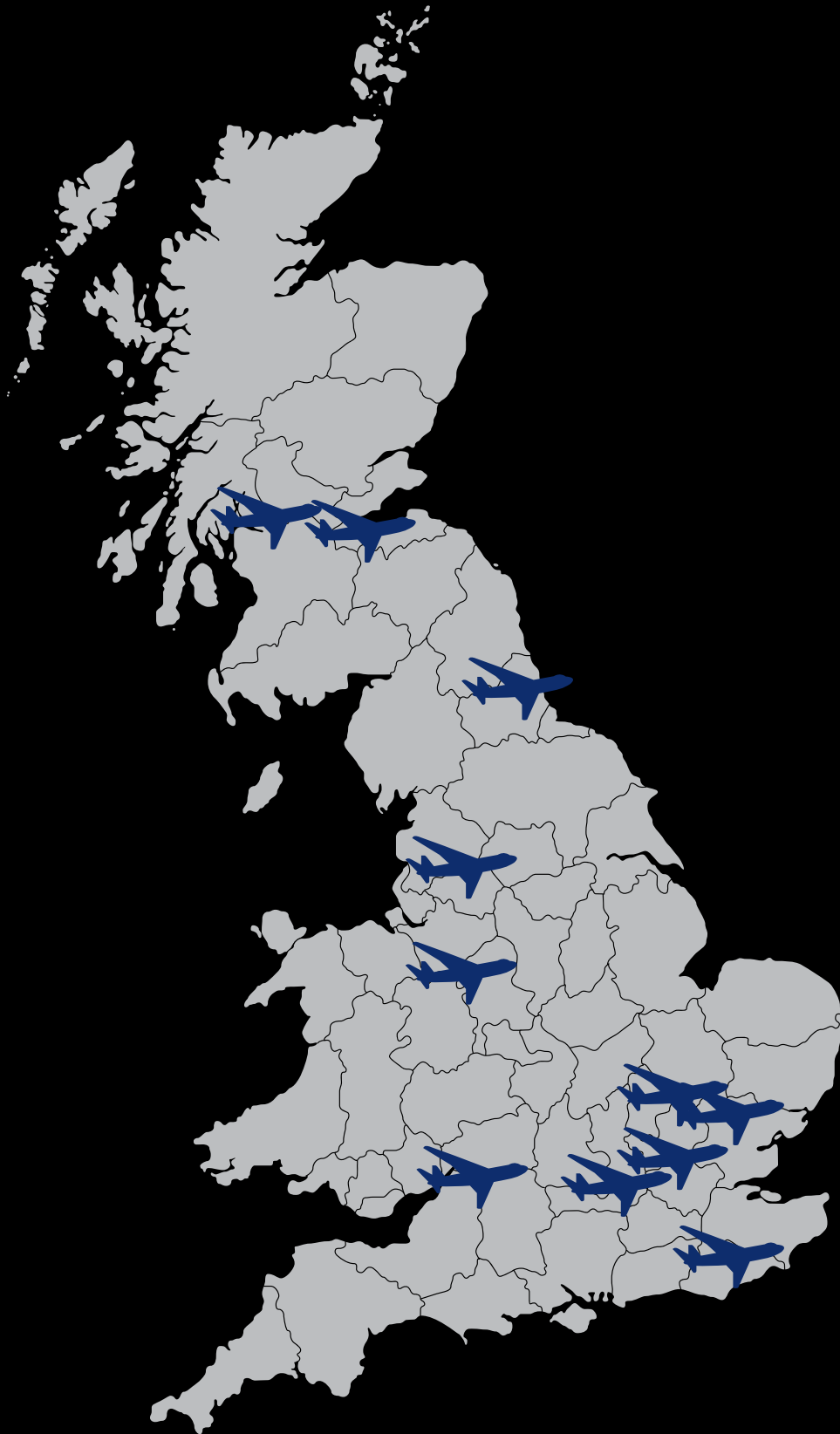
If Britain fails to embrace this trend, it risks placing all its eggs in one basket and creating an aviation industry without the flexibility and resilience to react to changes as and when they arise.

Non-stop flights from regional airports that bypass hubs would enable Heathrow to manage its limited capacity more effectively, while continuing to offer passengers the widest possible selection of departure times and nonstop destinations.

By using the right mix of small and medium-size aircraft flying nonstop point-to-point from secondary airports, the government can satisfy demand growth without resorting to consolidation, which would reduce frequencies and destination choices.

The market for large airports serving the world's dense trunk routes at the busiest travel times will continue to grow. But ultimately, the shortest distance between two points is a greater circle.

# Major UK airports



# 4 Failure to respond to trends in global travel is harming Britain

## The British policy response to trends in global travel falls squarely into the out-of-date 'demand management' school.

The Coalition Government's aviation strategy has the chance to change this and build a balanced aviation policy.

Regional airports can make a serious contribution to meeting UK aviation demand and help plug the aviation gap. Making greater use of existing infrastructure may not be the panacea. But, it is equally misleading to suggest that a single national hub is the one-and-only solution to Britain's aviation crisis.

Heathrow does have a critical role to play. But a third runway is not a national aviation strategy. The government needs to consider how existing infrastructure at our regional airports can help in the short, medium and long-term.

Fragmentation and point-to-point growth is the future. UK aviation policy should stop reinforcing an out-of-date model and it should get behind a passenger-centric approach.

## 4.1 Britain's access to new national markets is being restricted

Lack of connectivity to new markets is harming the economy and actively working against rebalancing the British economy.

When the British Chamber of Commerce undertook a survey of 350 company directors from countries like Brazil, India and China, it found that 67% of business leaders were more likely to do business in other European countries like France, Germany and Holland because of their airports were better connected and easier to access.

Two thirds of this group said they would do business in Britain if flights connections improved.<sup>25</sup> Oxford Economics estimate that the lack of aviation capacity in the South East would cost the economy £8.5 billion a year and prevent the creation of 141,400 jobs by 2021.<sup>26</sup>

Trade with emerging markets has increased from 7% of total UK trade in 2000 to 13% in 2010. It is currently valued at £110 billion. This represents just under half of the increase in the UK's trade growth since 2000.

But the pattern of trade between Britain and emerging economies is not uniform. A recent report by Frontier Economics found that trade between Britain and emerging markets that have a daily flight connection is twenty times higher than trade with countries that are only accessible via transfer. Investment flows follow the same pattern and the lack of access to new markets is estimated to have cost the British economy £1.2bn.<sup>27</sup>

## 4.2 Britain is missing out on trade with the new mega-cities

Each year, sixty million people across the world are moving from rural to urban centres. While established cities will account for some of this growth, Chinese cities like Chongqing, Chengdu and Shenzhen are already larger than London and will continue to boom. By 2025, it is likely that there will be upwards of twenty seven cities with populations of over ten million. As global demography changes and the world's newest mega-cities seek trading partners with existing markets, the future success of the British economy depends on a series of airports supporting various UK cities. Each of these cities needs an airport that can offer point-to-point connectivity to these new markets. This would significantly help the government in its efforts to rebalance growth across the UK economy.

**Table 6 Passenger figures by destinations from regional UK airports (2007)**

Category	Routeing	Passengers (000)	Overall Rank
Domestic	Manchester – Hong Kong	136	1
– Long Haul	Manchester – Tokyo	62	15
	Glasgow – Hong Kong	56	24
	Edinburgh – Chicago	55	25
	Edinburgh – Hong Kong	51	29
	Domestic	Manchester – Madrid	51
– Short Haul	Edinburgh – Madrid	33	102
	Edinburgh – Lisbon	32	109
	Aberdeen – Paris	25	166
	Manchester – Lisbon	24	188
	Short Haul	Dublin – Singapore	98
– Long Haul	Barcelona – Los Angeles	88	3
	Paris – Hong Kong	87	4
	Rome – Hong Kong	85	5
	Paris – New York	79	8
	Long Haul	Chicago – Nairobi	85
– Long Haul	Toronto – Dubai	81	7
	New York – Tel Aviv	65	13
	New York – Mumbai	58	21
	New York – Delhi	56	23

The number of city pairs served by nonstop flights has steadily grown from around 6,000 in 1985 to over 10,000 today. Over 2,000 of those new city pairs have been added in the last 10 years, with about 400 in the last year alone. Competition is driving this growth. In the past, the market for long-range routes was relatively uncompetitive because only large aircraft had the necessary range to reach long-distance routes nonstop. The latest generation of aircraft changed this. They enable economies to trade direct with long-distance markets and to create new long-distance nonstop city pairs.<sup>28</sup>

The Civil Aviation Authority (CAA) analysed connecting passengers by routing at Heathrow in 2007. Their research demonstrated that the actual journeys passengers wanted to fly were rarely between the hub airports the system pushes them through.<sup>29</sup>

Offering more frequent flights and nonstop services gives airports and airlines a competitive advantage over countries that only offer flights requiring intermediate stops to the same market. The uptake of this technology by the aviation market has made it highly probable that the historical trend toward higher frequencies and point-to-point service will continue.

The emphasis of any national aviation policy must be on creating a system prioritising the passenger experience and has the flexibility to embrace new markets.

### 4.3 Lack of a strategy to connect the UK to the fastest growing new markets

The International Monetary Fund (IMF) predicts the eight largest developing markets will produce over half of worldwide growth over the next decade. The recent economic statistics bear this out.

This will have a significant impact on the UK's aviation trends. Table 7 shows how demand for air travel will change for different geographic regions 2010–2030. The most striking observation is the difference between GDP and airline traffic growth forecasts for developed economies and developing economies. GDP growth in Asia Pacific, Latin America and Africa is set to outstrip growth in Europe and North America by a factor of two to one. Airline traffic is set to grow at a factor of three to one. Cargo traffic to and from new markets, which is a proxy for trade growth, will also outpace old markets.

**Table 7 How demand for air travel will change by region, 2010–2030**

	Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
World economy (GDP)	4.70%	2.70%	2.00%	4.10%	4.20%	3.40%	4.40%	3.30%
Airline traffic (RPK)	6.70%	2.90%	4.30%	6.60%	5.90%	4.30%	5.10%	5.10%
Cargo traffic (RTK)	6.30%	4.80%	4.70%	6.20%	6.10%	5.40%	5.20%	5.60%

In a recent survey of British exports, the Department for Business, Innovation and Skills points to the opportunities for British companies in newer markets:

*Some of the UK’s major historic trading partners will be overtaken in importance by these high growth markets. Long term forecasts suggest that by 2050 the combined size of the seven largest developing economies will grow to 150 per cent of the size of the G7 countries, from a current level of around 25 per cent. By 2050, China is predicted to be the largest economy in the world, reaching 129 per cent of the size of the US economy from a starting point of 23 per cent in 2007. Further, survey evidence suggests that British firms themselves perceive opportunities in emerging markets.*

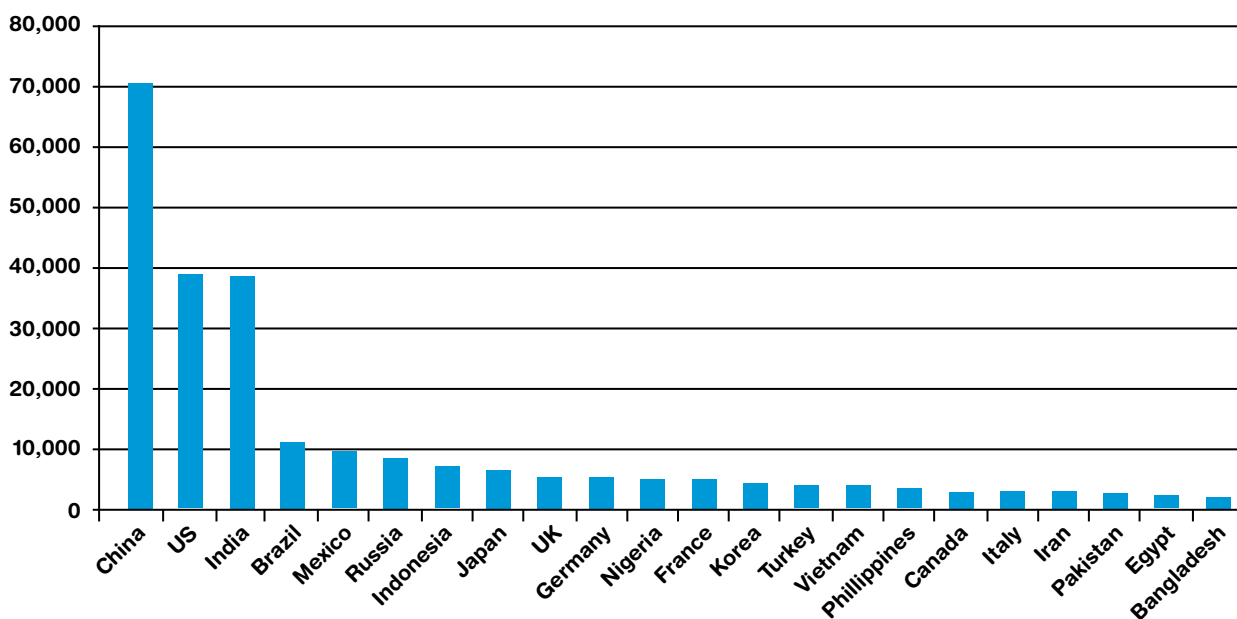
*Among the high growth markets there are those that are at a more advanced stage in their development,*

*such as Korea, Singapore, Taiwan and Turkey, and those that are growing faster from a lower level of GDP per capita, such as China, India, Indonesia and Vietnam. Middle Eastern high growth markets (Qatar, Saudi Arabia and the UAE) already have relatively high levels of GDP per capita, but Qatar’s economy is still expected to grow at around 9 per cent per annum over the next five years. There are also several countries emerging as a new wave of high growth markets; Bangladesh, Egypt, Nigeria and the Philippines are expected to record average growth rates above 7 per cent per annum between now and 2050, creating more long-term opportunities.<sup>30</sup>*

The BIS report goes on to cite Goldman Sachs’ research into the World in 2050. Table 8 shows where the growth in opportunities will come from and the potential damage to UK PLC of not having an aviation strategy to connect with the growing parts of the world.

**Table 8 Projections of World GDP levels in 2050**

GDP 2006 US\$ bn







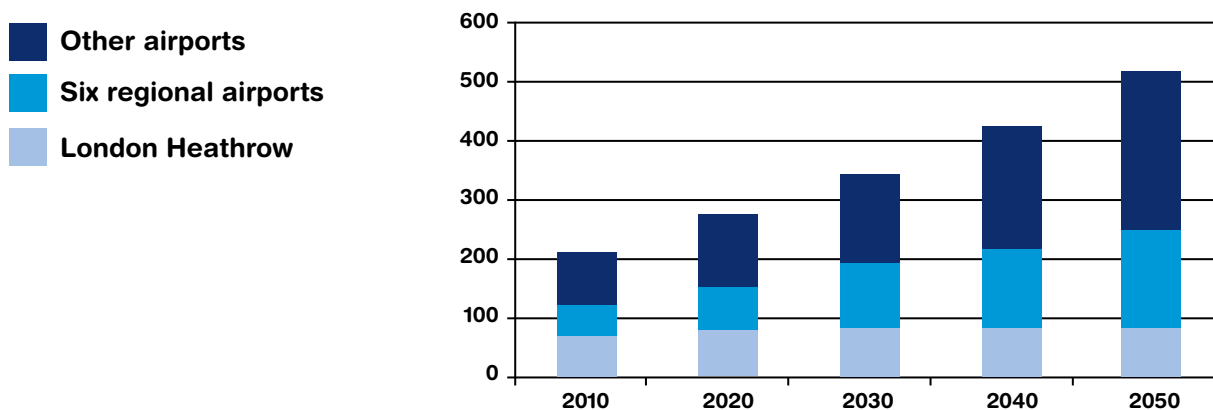
#### 4.4 The capacity gap is damaging the passenger experience

Table 9 shows the Department for Transport’s (DfT) passenger projections for British air travel. In 2011, British airports handled about 220 million passengers. Based on conservative projections of an annual growth rate of 2%, the DfT forecasts that British airports will have to cater for an average of 345 million passengers in 2030 and 520 million in 2050.<sup>31</sup>

Put differently, British airports will need to more than double the volume of passengers over the next forty years.

The way that British aviation capacity is concentrated on a small number of airports in one corner of the country is one of the factors behind a less satisfactory customer experience. In a recent survey carried out by Which, the 7 lowest ranking airports were all based in the south-east, with Heathrow occupying three of the slots on its own.<sup>32</sup>

**Table 9 The Government’s passenger projections (Department for Transport)**



## Your favourite large airports (over 4million passengers per year in 2010)

Airports (Sample size)	Airport Environment	Design of Airport	Information and Navigation	Queues and Delays	Parking	Food Outlets	Shops	Customer Score
Birmingham Terminal 1 263	★★★★	★★★★	★★★★	★★★	★★★★	★★★★	★★★★	64%
Newcastle	256	★★★★	★★★★	★★★★	★★★	★★★	★★★	64%
Edinburgh	453	★★★★	★★★	★★★	★★★	★★★★	★★★	50%
London Heathrow Terminal 5 1,137	★★★★	★★★★	★★★	★★★	★★★	★★★★	★★★★	50%
Birmingham Terminal 2 175	★★★	★★★	★★★	★★	★★★	★★★	★★★	50%
East Midlands 305	★★★	★★★	★★★	★★	★★★★	★★★	★★★	58%
Manchester Terminal 2 362	★★★★	★★★	★★★★	★★★	★★★★	★★★	★★★★	57%
Manchester Terminal 3 200	★★★	★★★	★★	★★★	★★★★	★★★	★★★	56%
Bristol 474	★★★	★★★	★★★	★★★	★★★	★★	★★	56%
Manchester Terminal 1 451	★★★	★★★	★★★	★★★	★★★★	★★★	★★★★	55%
Glasgow International 406	★★★★	★★★	★★★★	★★★	★★★★	★★★	★★★	54%
Belfast International 115	★★★	★★★	★★★	★★	★★	★★	★★	52%
Liverpool John Lennon 263	★★★	★★★	★★★	★★	★★★★	★★★	★★★	52%
London Stansted 727	★★★	★★★	★★★	★★	★★★	★★★★	★★★★	51%
London Gatwick North Terminal 1,182	★★★	★★★	★★★	★★	★★★	★★★	★★★	47%
London Gatwick South Terminal 1,050	★★★★	★★★	★★	★★	★★★	★★★	★★★	44%
London Heathrow Terminal 1 323	★★	★★	★★	★★	★★★	★★★	★★★	42%
London Heathrow Terminal 4 350	★★★	★★★	★★★	★★	★★★	★★	★★★	42%
London Luton 510	★★★	★★★	★★	★★	★★	★★★	★★★	41%
London Heathrow Terminal 3 780	★★	★★	★★	★★	★★	★★	★★	40%
<b>All large airports 10,450</b>						<b>Average Customer Score</b>		<b>51%</b>

## 4.5 A debate too concerned with the south-east

A world-class city like London deserves world-class aviation links. But a Heathrow-centric solution will not answer London's needs, let alone Britain's needs.

Table 10 shows the DfT's future terminal passenger forecasts for UK airports. The red segment shows what a third runway at Heathrow could deliver by 2050. Based on the DfT projections of constrained terminal passenger numbers, Heathrow is expected to handle 85 million passengers by 2030, increasing to 90 million by 2050.<sup>33</sup>

The graph demonstrates that a third runway will only be able to meet about 16% of additional airport capacity in 2030 or 7% of additional capacity in 2050. That is not enough.

There are also absolute capacity and timing issues.

In terms of capacity, the fact that Heathrow is situated on a cramped site in the West London suburbs means

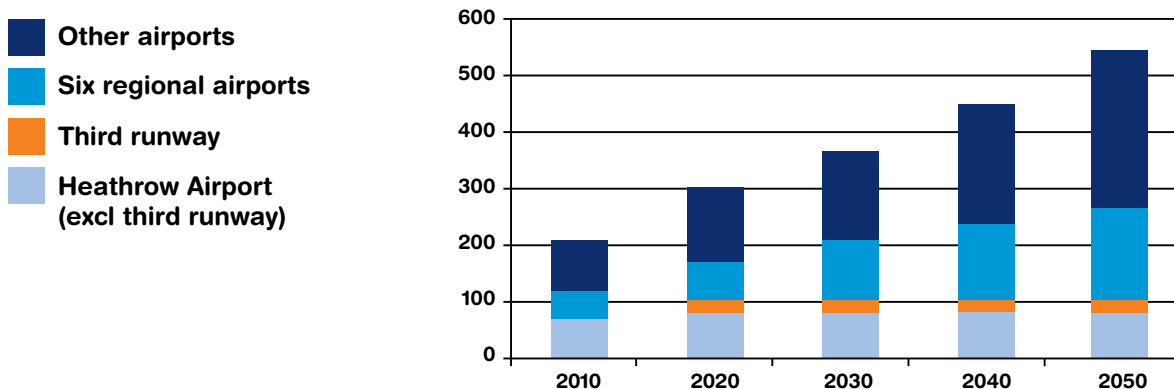
that it could never expand into a four or five runway airport like a Schiphol or a Frankfurt. Geographical restrictions mean that even if a third runway were built, Heathrow would have to start buying up whole sections of residential areas if it wanted to expand.

In terms of timing, if a third runway was given the go-ahead, it would take 6–10 years to be operational. Even this – with all the legal and political hurdles we know about – seems heroic. In addition, noise and air pollution restrictions would prevent the airport from operating at its full potential and the lack of headspace leads to severe delays in periods of inclement weather.

With these capacity and timing issues combined, a third runway at Heathrow leaves policy makers stuck in the middle.

The modest medium term benefits it would bring could not deliver the capacity the industry, and economy, needs today. Equally, in the long-term, the lack of the potential to build a fourth or fifth runway on the Heathrow site means that Britain will need to invest in a long-term alternative whatever the case.

**Table 10 The impact of a third runway – built, operations and at capacity by 2030**



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# 5 A manifesto for balanced aviation in Britain

## 5.1 Name a network of “National Airports” to begin the process of rebalancing aviation

Table 11 shows the contribution regional airports can make towards satisfying future passenger demand. The six largest regional airports outside of the South East will be able to handle 56 million more passengers in 2030 than they do now. Nearly 50% of future demand. Heathrow’s contribution to British aviation capacity will nearly half from 33% in 2010 to around 17% in 2050.

By 2050, with the right backing and clear leadership, the largest six regional airports could add 116 million of passenger capacity to the network.

Take, for instance, Birmingham Airport. It currently handles nine million passengers a year. Passenger numbers could double today without any new infrastructure.

The runway extension is under construction and is due for completion in 2014. Once the runway extension is complete, Birmingham Airport will have the capability to serve new long-haul markets with spare capacity for over 27 million passengers. That is a larger increase in capacity than a third runway at Heathrow could deliver a decade down the line.

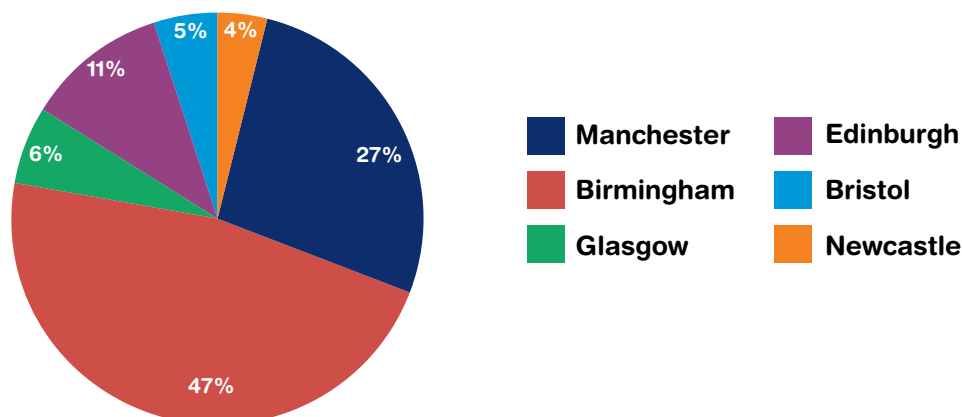
The longer runway will enable Birmingham Airport to offer longer-haul flights to all popular destinations, and progressively increase passenger volumes to 36 million passengers per year. It is possible that the new generation of Aircraft – such as the Boeing 787 and Airbus A350 – might be able to reach Australia non-stop from Birmingham.

Britain’s response to global aviation trends should be straightforward. British airports have the spare capacity and existing infrastructure to satisfy much of the growing demand within the aviation industry. Fully utilising the existing capacity at major UK airports like Birmingham Airport is better for customers and better for business.

The government should actively support and market airports outside of the South East by designating them as “National Airports”. This would dispel the widely held misconception that the only airport in the UK is Heathrow and assist UK airports in attracting new routes.

The government should embrace the development of city pairs and have an active development strategy aiming to promote growth between UK industries and complementary international markets.

**Table 11 The six largest airport outside the South East can handle 56m more passengers by 2030**



The Government should define Birmingham Airport as a “National Airport”, in recognition of the impact that it can have across a range of departmental objectives.

Aviation links are important but they do not have to be at Heathrow. A newly-defined “National Airport” will benefit not just the wider Midlands region but the UK, by providing more choice.

Making better use of Birmingham Airport by defining it as a “National Airport” will generate jobs across the economy, allow Heathrow and SE airports to focus on important local markets, and provide direct connections for manufacturers to new markets. It will also provide customers with more choice.

Birmingham Airport is the main international port of entry for the regional economy and is one of the Midlands’ most significant economic assets. A flourishing Birmingham Airport will connect British business to emerging markets, generate growth for the national economy and enable the Government to satisfy key objectives.

The airport is an essential part of the local economy, as well as being a strategic national asset. Nearly 40% of its total procurement is spent on businesses in and around the airport and it currently generates £600 million for the local economy each year. Birmingham City Council predicts that the runway extension will create over 10,000 jobs in construction, aviation and industry for the local economy by 2020 and generate £1.88 billion for the local economy by 2030.<sup>34</sup> A growing airport will benefit the wider Midlands region and the UK.

Birmingham Airport could make a major contribution to meeting air passenger demand immediately. This could help to release capacity at airports in the south east, to serve the south east. With the right government backing, various regional airports are located on sites that have the potential to offer more long-term capacity solutions.

## 5.2 Continue the Government’s policy of no third runway

The Coalition Government does not support new runways at Heathrow, Gatwick or Stansted.<sup>35</sup> Although attempts are being made to put the third runway

back onto the agenda, the problems that caused the Conservatives to decide against a third runway remain the same.

The answer to aviation capacity is not to wring out every last piece of capacity at Heathrow. This would have unintended consequences. The dominance of London airports already means British regions are missing the opportunity to build their own strong links with emerging economies.

London may be the centre for UK financial services, but the heart of British engineering and manufacturing is in the Midlands. 25% of UK manufacturing workers are based in the region. The sector contributes 11% of UK GDP and employs over 2.5 million workers.<sup>36</sup>

Any revisiting of the decision over the third runway would demonstrate that the UK lacks a coherent aviation strategy to maximise growth for the economy. The third runway represents a policy cul-de-sac that could leave UK industry in limbo for years to come. There are a series of inevitable decisions to be made about UK aviation strategy and covering them over with a third runway fig-leaf just delays Britain’s move to an aviation strategy built for jobs and growth. There is a golden window of opportunity for the Coalition government to make the right choices for long term sustainability over short term expediency.

## 5.3 High speed rail and through ticketing

Countries that are successfully responding to trends in global aviation, such as Germany, are doing so because they have an integrated approach that considers the needs of the whole country.

Like most things in Britain, access to transport is dominated by the south east and London is the epicentre of Britain’s rail, road and air transport systems. There are fourteen mainline railway stations in London, five major London airport terminals and thirteen lines managed by Transport for London servicing a population of just under ten million people. London’s three major airports, Gatwick, Heathrow and Stansted also have purpose-built express train lines. Moving forward, the government is working hard to increase London’s connectivity by investing £16 billion in Crossrail 1. Of the 37 Crossrail stations, the direct connection to Heathrow is the most crucial

and will mean that arriving passenger will be able to travel to Central London by tube, Crossrail, express train and mainline train. This infrastructure makes London the best connected capital city in Europe and one of the best connected cities in the world, with access to 350 international destinations. And the commitment to continue improving London's connections with international markets is the single most important reason why the South East dominates the British economy.

By comparison, the total sum of the transport systems connecting Britain's next five largest cities is less than the sum of London's network. Birmingham and Greater Manchester, the second and third largest cities, are expected to deliver growth and prosperity to over six million people with a combined total of six mainline stations, two airports and two tram systems. While Crossrail has received £8 billion of central government investment, the proposed Northern Hub, which would link the North West conurbations of Leeds, Liverpool and Manchester with those in the North East, has not even received planning permission.

The proposed construction of a new high-speed rail line connecting London Euston to Birmingham, and then on to Manchester and, eventually, Scotland is the single most important piece of domestic policy to support Britain's aviation industry. 225mph trains will allow people and services to flow at unprecedented speeds and passengers will be able to travel between Birmingham and London in 45 minutes. Linking Birmingham Airport to both of these markets, London in 38 minutes and Birmingham in 7 minutes, will have a dramatic effect on the West Midlands. Geoff Inskip, Chief Executive of Centro, estimates that high-speed two will generate 11,000–22,000 jobs and £750m to £1.5 billion for the economy. David Hoggarth, Director of West Yorkshire ITA Metro, estimates that 'there are potential benefits of between £10 billion and £12 billion to be had from greater connectivity and capacity.'<sup>37</sup>

There are other ways in which the government could also support the growth of regional connectivity. A policy that has received widespread support is the horizontal integration of ticketing systems across airports, airlines and the providers of surface access transport to airports, train and bus operators. By working together, companies could develop a system that benefits the consumer by allowing them to purchase a ticket that takes them from the air to their sofa will add enormous value to regional airports and make them more attractive to travellers.

## 5.4 Reform landing fees

Aviation is one of the only industries that has regulated and non-regulated assets. Whilst it must be acknowledged that the government was correct to call for the divestiture of Gatwick, Stansted and Edinburgh, the government should also review the pricing structure used to regulate airports by the CAA. The government should instruct the CAA to:

- allow 'regional' airports to have a voice within the quinquennial negotiations,
- stop using the single till approach that enables BAA to charge a minimal fee for flights to land at their airports, and
- explore the idea of a system of congestion charging at overcapacity airports that incorporates the noise and environmental impacts of the heavy traffic.

## 5.5 Supporting new routes to emerging markets with an Air Passenger Duty holiday

This paper, among many others, has shown that to get a slice of the huge growth of world trade, the UK needs to be better than its competitors at accessing emerging markets. With this in mind, the Government should introduce a 'holiday' on Air Passenger Duty for flights to emerging markets from its new network of "National Airport". This would send a clear message to international business saying that "Britain is open for business."



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# Endnotes

1. Hub-and-spoke can be defined as 'a system of air transport management in which secondary airports offer connecting services and feeder traffic to a primary airport, which has connections to a greater number of onward destinations.'
- Point-to-point can be defined as 'any air transport service that takes a passenger nonstop from point of origin to destination.'
2. Boeing, Current Market Outlook 2011–2030, 2011.
3. Department for Transport, "UK aviation forecasts 2011" – <http://assets.dft.gov.uk/publications/uk-aviation-forecasts-2011/uk-aviation-forecasts.pdf>.
4. World Tourism Organisation – <http://media.unwto.org/en/press-release/2012-01-16/international-tourism-reach-one-billion-2012>
5. Manila standard, <http://business.manilastandardtoday.com/2012/06/18/wooing-chinese-tourists/>
6. World Tourism Organisation.
7. Office of National Statistics, Travel Trends, 2010, p. 24.
8. Office of National Statistics, Travel Trends, 2010, Table 4.07.
9. Civil Aviation Authority, Passenger Survey Report, table 4.3a [www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf](http://www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf).
10. Deutsche Bank Research, "The future of the hub strategy for the aviation industry", August 2006.
11. GBTA executive director Michael McCormick – [www.executivetravelmagazine.com/blogs/air-travel-news/2012/1/13/forecast-business-travel-volume-in-2012-will-hold-steady-as-costs-rise](http://www.executivetravelmagazine.com/blogs/air-travel-news/2012/1/13/forecast-business-travel-volume-in-2012-will-hold-steady-as-costs-rise).
12. Department for Transport, UK aviation forecasts 2011 – <http://assets.dft.gov.uk/publications/uk-aviation-forecasts-2011/uk-aviation-forecasts.pdf>.
13. World Trade Organisation – [www.wto.org/english/news\\_e/pres11\\_e/pr628\\_e.pdf](http://www.wto.org/english/news_e/pres11_e/pr628_e.pdf).
14. World Airline News, "Boeing presents new evidence for fragmentation in annual forecasts", June 2001.
15. Sascha Mayer, "Airbus vs Boeing", 2007.
16. Sascha Mayer, "Airbus vs Boeing", 2007.
17. Deutsche Bank Research, "The future of the hub strategy for the aviation industry", August 2006.
18. Boeing, Current Market Outlook 2011–2030, 2011.
19. Nigel Dennis, "The development of long-haul air services from regional and secondary airports in Europe", 2005.
20. Boeing point-to-point, "The trend in future air travel – frequencies and nonstop continue to grow", 2005.
21. [www.dailymail.co.uk/travel/article-1371867/Heathrow-Airport-rated-99th-world-league-table.html](http://www.dailymail.co.uk/travel/article-1371867/Heathrow-Airport-rated-99th-world-league-table.html).
22. Boeing point-to-point, "The trend in future air travel – frequencies and nonstop continue to grow", 2005.
23. David Gillen, "Boeing vs Airbus: who has the current view of future aviation markets?" 2005.
24. Boeing point-to-point, "The trend in future air travel – frequencies and nonstop continue to grow", 2005.
25. British Chamber of Commerce, "The economic impact of hub airports", 2009.
26. Oxford Economics, "The value of aviation connectivity to the UK", 2012.
27. Frontier Economics, "Connecting for growth: the role of Britain's hub airport in economic recovery", 2011.
28. Boeing point-to-point, "The trend in future air travel – frequencies and nonstop continue to grow", 2005.
29. Civil Aviation Authority, Passenger Survey Report – [www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf](http://www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf).
30. Department for Business, Innovation and Skills – [www.bis.gov.uk/assets/biscore/economics-and-statistics/docs/u/10-803-uk-trade-performance-growth-patterns](http://www.bis.gov.uk/assets/biscore/economics-and-statistics/docs/u/10-803-uk-trade-performance-growth-patterns).
31. Department for Transport, "UK aviation forecasts 2011" – <http://assets.dft.gov.uk/publications/uk-aviation-forecasts-2011/uk-aviation-forecasts.pdf>.
32. *Which?*, January 2012.
33. Constrained demand refers to the inability to expand beyond a certain size as a result of certain geographical, legal or economic impediments.
34. Ecotec, Advantage West Midlands – Releasing the potential of the M42 Corridor – March 2009.
35. Department for Transport, "UK aviation forecasts 2011" – <http://assets.dft.gov.uk/publications/uk-aviation-forecasts-2011/uk-aviation-forecasts.pdf>.
36. Department of Business, Innovation and Skills – [www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/manufacturing](http://www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/manufacturing).
37. All Party Parliamentary Group for High Speed Rail, report into the inquiry into Britain's rail capacity, 2012.

# Bibliography

- Air Transport World, "Bigger & Smarter", May 2004.
- Airline Business, "Dream Date", April 2004.
- Airline Business, "Riding the Dubai wave", December 2003.
- All Party Parliamentary Group for High Speed Rail, report into the inquiry into Britain's rail capacity, 2012.
- Andreas Papatheodorou & Zheng Lei, "Leisure travel in Europe and airline business models: A study of regional airport in Great Britain", *Journal of Air Transport Management*, Vol. 12, 2006.
- Boeing Frontier, "Going the Distance: Are longer-range direct flights the answer to hub congestion?" Vol. 1 issue 3, July 2002.
- Boeing point-to-point, "Point-to-Point Service Gives Passengers More Nonstop Choices", Vol. 1 issue 2, December 2005.
- Boeing point-to-point, "The trend in future air travel – frequencies and nonstop continue to grow", 2005.
- Boeing, "Current Market Outlook 2011–2030", 2011.
- British Chambers of Commerce, "The Economic Impact of Hub Airports", 2009.
- Civil Aviation Authority, "2010 Passenger Survey Report", 2010 – [www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf](http://www.caa.co.uk/docs/81/2010CAAPaxSurveyReport.pdf).
- Civil Aviation Authority, "Connecting passengers at UK airports", 2008 – [www.caa.co.uk/docs/5/Connecting\\_Passengers\\_at\\_UK\\_Airports.pdf](http://www.caa.co.uk/docs/5/Connecting_Passengers_at_UK_Airports.pdf).
- Daily Mail, "Heathrow Airport rated 99th in world league table", March 2011 – [www.dailymail.co.uk/travel/article-1371867/Heathrow-Airport-rated-99th-world-league-table.html](http://www.dailymail.co.uk/travel/article-1371867/Heathrow-Airport-rated-99th-world-league-table.html).
- David Gillen, "Boeing vs Airbus: Who has the correct view of future aviation markets?" Centre for Transportation Studies, University of British Columbia, December 2005.
- David Gillen, "Network evolution with changes in market structure and competition: linking network structure and business models", Centre for Transportation Studies, University of British Columbia, June 2006.
- Department for Transport, UK aviation forecasts 2011 – <http://assets.dft.gov.uk/publications/uk-aviation-forecasts-2011/uk-aviation-forecasts.pdf>.
- Department of Business, Innovation and Skills, "UK trade performance growth patterns", p.54 – [www.bis.gov.uk/assets/biscore/economics-and-statistics/docs/u/10-803-uk-trade-performance-growth-patterns](http://www.bis.gov.uk/assets/biscore/economics-and-statistics/docs/u/10-803-uk-trade-performance-growth-patterns).
- Department of Business, Innovation and Skills, Manufacturing – [www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/manufacturing](http://www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/manufacturing).
- Deutsche Bank Research, "The future of the hub strategy in the aviation industry", August 2006.
- Ecotec, Advantage West Midlands – Releasing the potential of the M42 Corridor – March 2009.
- Frontier Economics, "Connecting for growth: the role of Britain's hub airport in economic recovery", 2011.
- Global Business Travel Association, "GBTA Business Travel Index (BTI) Outlook – Western Europe", press release, 2012 – <http://finance.yahoo.com/news/global-business-travel-association-gbta-050000118.html>.
- Hans-Martin Niemeier, "Regulation of airports: the case of Hamburg airport – a view from the perspective of regional policy", *Journal of Air Transport*, 2002.
- Nigel Dennis, "Competition and change in the long-haul markets of Europe", *Journal of Air Transportation*, 2007.
- Nigel Dennis, "The development of long-haul air services from regional and secondary airports in Europe", European Regional Science Association, August 2005.
- Office of National Statistics, *Travel Trends*, 2010.
- Oxford Economics, "The value of aviation connectivity to the UK", 2012.
- Sascha Mayer, Strategic Management Report, "Airbus versus Boeing", University of Queensland Australia, 2007.
- Which?* Magazine, January 2012.
- World Airline News, "Boeing Presents New Evidence for Fragmentation in Annual Forecast", June 2001.
- World Tourism Organisation, "International tourism to reach one billion in 2012", January 2012 – <http://media.unwto.org/en/press-release/2012-01-16/international-tourism-reach-one-billion-2012>.
- World Trade Organisation, "World trade 2010, prospects for 2011", April 2011.

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