

**ECONOMIC ASSESSMENT OF SOUTH WEST  
REGIONAL AIRPORTS**

South West of England Regional Development Agency  
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Final Paper

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## EXECUTIVE SUMMARY

This paper undertakes an analysis of the economic role of the airports within the South West. It is intended to provide the 'evidence base' from which the South West Regional Development Agency (the 'Agency') can formulate its policy regarding potential future airport development within the region.

The analysis shows that air travel services have been an important area of economic growth for the region in the last decade or more and, on the basis of reasonable assumptions about relative prices, incomes, tastes and sector structural developments, this trend is expected to continue.

Air travel services are likely to be an important but not sufficient ingredient (in themselves) in any attempt to raise the contribution of productivity-led growth to the region's economic performance. SW businesses invariably cite fast, reliable and cost effective transport links as a key missing ingredient in developing their access to markets outside the region.

In view of government's instruction that we raise the region's "sustainable trend rate of growth in terms of GVA per head", it is important that the South West's main airports, along with other transport modes, provide good access to/from existing and growing markets outside the region. This will help secure more productive, competitive and sustainable businesses in line with the Regional Economic Strategy.

We welcome current activity, at a national level, to promote technical innovation in the aviation sector, changes to international/UK policy and to customer behaviour. This may help alter the pattern of future sector development and will help ensure that expected future growth is increasingly sustainable.

### *Historical Passenger Growth and Future Projections*

The regional air travel market has changed dramatically in the past number of years. The growth in regional air services can be linked to the liberalisation of European air services from 1993. This allowed new and existing airlines to exploit new opportunities and gave rise to the rapid expansion of No-Frills Carriers (NFCs). The NFCs have changed the nature of the short-haul airline business in Europe, both in terms of the price and the product offering.

This has unlocked latent demand from passengers who were keen to travel from their local airport, rather than via London or some other connecting point. As a consequence, growth at UK regional airports has mostly exceeded growth at a national scale, primarily by growing faster than the large South East airports.

- 1. Total passenger movements in the region have grown at three times the rate of national passenger growth since 1997.**

**Passenger numbers at South West airports, 1999-2006**

	1999	2002	2004	2006
Bournemouth	273,000	392,000	493,000	961,000
Bristol	1,965,000	3,415,000	4,603,000	5,710,000
Exeter	288,000	336,000	614,000	971,000
Newquay	75,000	185,000	253,000	343,000
Plymouth	109,000	76,000	106,000	77,000
<b>Total</b>	<b>2,711,000</b>	<b>4,406,000</b>	<b>6,070,000</b>	<b>8,063,000</b>

Most airports appear to be in a relatively robust position, with an increase in commercial focus. The exception appears to be Plymouth which has suffered contracting passenger numbers in strong market conditions.

Overall, demand has been driven by:

- The decreasing relative real price of air travel
- The increasing real income of consumers
- Changes in consumer taste; in terms of leisure time and expenditure
- Increased product offering from the airlines and airports

When coupled with capacity constraints at the larger South East airports, passenger growth at regional airports could continue to outpace overall national projections. The airports' own collective projections exceed the national profile, but only marginally so. Importantly, the latest passenger demand projections produced by the Department for Transport (DfT) in November 2007 continue to project strong growth at all regional airports, particularly at Bristol, Bournemouth and Exeter.

**2. The collective growth plans of the airports do not represent significant deviation from the growth outlined in the national projections.**

This paper argues that we are not in an appropriate position to question the growth projections of either the individual airports or the DfT projections. The National Air Passenger Demand Model applied by the DfT is an econometric model that estimates the effect upon future demand of key driving variables. Thus, the effects of higher oil prices, lower economic growth, additional carbon surcharge etc. have been factored into projections.

**3. In terms of certainty, it is likely that the airports will have a greater degree of confidence in their projections for the period to 2015.**

In particular, regulatory changes (particularly any carbon surcharge and its effect on prices) will be understood more clearly and can be factored into business planning. The growth plans of the individual airports broadly show that much of the projected growth will be 'front loaded' into the period to 2015. This represents collective confidence in the near term growth prospects for the market.

In addition, we have run a number of regional scenarios that have reflected the exercise undertaken by the DfT.

**4. This estimates that economic and real income growth of individuals will remain the fundamental driver of long term trends in passenger demand.**

Those scenarios which work through the price of air travel have relatively muted impacts. The 2007 DfT projections are based on the leisure market being somewhat responsive to changes in price whilst there are no indications that price has a major influencing factor on business travel.

The consequence of any potential rise in the relative real price of air travel – driven by 'internalising' the cost of emissions – may not be affected significantly if the economy remains strong in the long term. Indeed, the DfT have modelled decreases in real non-fuel costs for airlines. This suggests that the impact of the Air Passenger Duty and carbon surcharge on the consumer may be partially negated by continuing competition led pressure on costs.

5. Projections at a national, regional and airport level all imply that a proportion of any growth will be driven by an increase in the propensity to fly.

It is likely that there will need to be a higher 'density' of air travel from regional residents for our airports to achieve their growth plans.

*Leakage*

6. Leakage from the region remains an issue. It is estimated that around 8.2 mppa are made from the South West to/from airports outside of the region.

This remains marginally larger than collective passenger movements through the regions airports. Whilst the route portfolio of regional airports has increased markedly, they still do not satisfy a large part of the 'market demand' in the region, particularly for 'long haul' routes. Leakage has decreased but will probably remain 'sticky' with regards to the long haul market.

*Estimates of Economic Importance*

Our commentary on the economic impact of airports is based on four primary areas:

- Employment – both direct and indirect (implicitly including the supply chain impacts)
- Tourism expenditure
- Effects on the competitiveness of businesses
- Clustering of businesses around airport activities

7. Airports are important economic actors in their own right, with significant direct and indirect employment via a range of support businesses.

**Gross economic impact based on employment effects**

	Gross Employment	Gross Value Added (mn)	Gross Output (mn)
Bournemouth	843	45.0	94.7
Bristol	4,353	218.5	493.0
Exeter	2,721	121.7	367.8
Newquay	408	18.6	31.4
Plymouth	312	19.5	45.0
<b>Total</b>	<b>8,637</b>	<b>423.3<sup>1</sup></b>	<b>1,031.9</b>

Employment at both Exeter and Plymouth are positively influenced by the associated presence of regional airlines. Bournemouth and Newquay could see strong near term employment growth, given their respective growth profiles.

8. It could be argued that Bristol is a regionally significant direct and indirect employer.

Employment is not necessarily commensurate with passenger throughput. As with most businesses, as they grow larger they tend to generate economies of scale. We would expect that as the competitive environment continues and intensifies, that this trend would continue. We have factored some sensitivity analysis into our estimates of future employment growth, based on increased efficiency at airport businesses.

<sup>1</sup> A broad estimate is that this equates to 4-5 per cent of regional GVA.

We estimate that, if the airports individually and collectively achieve their growth targets, then direct and indirect employment will similarly grow – although we estimate at a slower rate. Any confidence in these employment estimates will be greater in the near future, along with the airports themselves.

9. **Commentary on long term employment estimates should be treated with caution. It is likely that many factors will change in the medium to long term; ranging from business models, supply chains, employment types etc.**

**Estimates of future economic impact of regional airports**

	2015			2030		
	On site employment	Gross employment (FTEs)	GVA (£mn)	On site employment	Gross employment (FTEs)	GVA (£mn)
Bristol	2450-3231	4267-5628	190-251	2052-4294	3574-7479	159-334
Bournemouth	1064-1403	1834-2419	87-114	865-1810	1491-3120	70-147
Exeter	976-1287	1983-2616	106-140	889-1860	1807-3781	97-202
Plymouth	473-624	953-1258	51-67	422-882	850-1778	45-95
Newquay	411-542	609-803	36-48	655-1372	596-1248	36-74
<b>TOTALS</b>	<b>5374-7087</b>	<b>9646-12,724</b>	<b>470-620</b>	<b>4883-10,218</b>	<b>8318-17,406</b>	<b>407-852</b>

#### *Tourism Effects*

In terms of tourism, clearly airports are an important facility for both inbound and outbound travel.

10. **Importantly, our estimate of the tourism effects do not take into account the flow of expenditure out of the region because of consistency of data issues.**

**Airports' contribution to gross tourism expenditure**

	Gross Expenditure (£mn)	Gross Employment (FTEs)	Gross Value Added (£mn)
Bournemouth	20.13	425	13.5
Bristol	155.2	3279	103.9
Exeter	13.3	281	8.9
Newquay	21.39	452	14.3
Plymouth	1.59	34	1.1
<b>Total</b>	<b>211.61</b>	<b>4471</b>	<b>141.7</b>

We do show, however, that a significant amount of route development at regional airports has been connected to leisure destinations. The latest available data from the CAA suggests that there remains a large net outflow of UK passengers to leisure destinations.

Our estimates of the inflow of tourism expenditure do use, where appropriate, the latest Civil Aviation Authority data. We recognise that the airports may have access to additional data – particularly with regards to the level of business travel and the inbound/outbound split on their connections – but because this is a multi airport exercise we have attempted to use a consistent data set. For Plymouth and Newquay, we have made some assumptions based on the CAA data used for the other airports.

Again importantly, our estimates do not take into account 'additionality'; the proportion of passengers travelling through the regional airports who would not have made that journey – inbound or outbound – without the air connection in place. Again, this was data not consistently available across regional airports.

**11. As a consequence, commentary on airports role in facilitating additional movements into and out of the region is constrained.**

*Competitiveness and Clustering*

We recognise that transport infrastructure plays a fundamental role in business development. Importantly, it plays a key role in improving the perception of connectivity for more rural areas. Air connectivity is important in helping to retain high value added activities in the face of competitive pressures.

We expect that many routes offer significant benefits to South West businesses. There is evidence of increased business travel using air services and we argue that the improved connectivity that airports provide is an absolute prerequisite for the regions' economy to fully integrate into global markets. Whilst evidence of the importance of air travel to businesses always tends to be 'loose', what exists does suggest that it leads to improved competitiveness and boosts regional output.

We argue that the withdrawal of air services from the region would inhibit future economic growth potential. In particular, it would place regional businesses at a competitive disadvantage to others elsewhere.

**12. Access to markets has been shown as a key reason for the persistent productivity gap between South West businesses and UK averages.**

The relationship between transport and growth of sectors has been tested in a number of studies. All have adopted different approaches, all generate different results and all have some methodological issues. Not least, attempting to determine the true relationship – cause or consequence? Does high growth raise demand for air travel; or do high levels of air travel increase growth in those sectors? In reality, it's probably both.

In our paper we comment that there is mixed evidence between the growth sectors in the region over the last few years and their levels of air travel.

**13. The relationship between high growth sectors in the region and air travel appears to be weak. Air travel may not necessarily be a pre requisite for economic growth.**

It will be the case that air travel will play a variable role amongst sectors, or industries. Connectivity via airports will be a more important factor for some industries than for others. The importance of air travel will often be business specific.

However, previous work undertaken suggests that an increase in passenger travel, particularly business travel, would shift up long term national and regional economic growth and productivity.

In terms of 'clustering' of aviation related employment around airports, we argue that this is only displayed at Bournemouth. There are a number of key aviation occupiers at Bournemouth. Newquay and Exeter have plans for nearby employment land development but it is less clear how much of an aviation related focus there are in these plans.

## INTRODUCTION

### PURPOSE OF THE STUDY

This paper has been produced to inform the South West Regional Development Agency (the 'Agency') of the key issues that need to be considered when assessing its approach to the primary commercial airports within the region.

For the purposes of this paper, these are Bristol International Airport, Bournemouth Airport, Exeter International Airport, Plymouth City Airport and Newquay Cornwall International Airport.

The Agency wishes to gain a better understanding of the relationship between an airport and the regional economy, the employment opportunities which flow from airport activities, and the wider economic benefits that arise.

The paper has been prepared in line with the Government's strategic framework for the development of airport capacity, in line with the White Paper 'The Future of Air Transport', published on 16 December 2003.

One of the requirements of the White Paper was for significant airports to prepare Master Plans regarding their development plans for the period to 2030. To date, Bristol and Bournemouth have completed their Master Plans and have, or are, going through the public consultation process. Exeter, Newquay and Plymouth are at varying stages.

Where appropriate, our approach builds upon previous work that has been undertaken in the region and elsewhere. Almost all previous airport-related work acknowledges the methodological difficulties in the assessment of direct and, particularly, the indirect economic impacts that airports produce. Wherever possible, quantifiable approaches have been used; but we have also had to rely on secondary sources and more qualitative approaches in other instances.

### DATA SOURCES

We have drawn on a number of data sources. These are fully referenced throughout the report (usually as footnotes), the main sources include:

- Master Plans from the relevant airports and ancillary support papers from the remaining airports
- The Government White Paper on Future Air Transport (2003)
- Department for Transport (DfT) national air passenger projections
- CAA Passenger numbers, CAA Flight numbers, CAA Passenger surveys and International Passenger Survey
- South West Regional Accounts

## REPORT STRUCTURE

Following this introduction, the report is presented in two chapters:

- 'Past and Future Drivers of Air Travel'
- 'The Present and Future Economic Impact of South West Airports'

We recognise that the primary focus is estimating the economic impact of our regional airports. Therefore, we present much of the information of the first chapter in a series of appendices. However, to ensure appropriate context, each section will have a brief summary of the main points contained in its corresponding appendix:

### Chapter 1 - 'Past and Future Drivers of Air Travel'

*Section One, Policy Context;* provides an overview of the overall policy context, taking into account current national strategies and priorities. This includes consideration of emerging policy positions (and their potential impact upon future market growth) regarding the link between air travel and productivity (Eddington) and the environment (Stern).

*Section Two, The Changing Regional Market Place;* a brief overview of the main drivers that have altered the market place within the past few years.

*Section Three, Previous Airport Performance;* an overview of the recent historical growth experienced in each of the five regional airports. Including an analysis of financial performance, route expansion and passenger growth.

*Section Four, Individual Airport Growth Plans and National Growth Projections;* detailing the growth plans for each of the regional airports; set in context of national growth projections.

*Section Five, Scenario Testing;* implementing different scenarios at a regional level to estimate the impact upon potential airport growth in the South West

### Chapter 2 – 'The Present and Future Economic Impact of SW Airports'

*Section Six, Economic Impact Methodology;* sets out the methodology used in calculating the direct and indirect economic impacts of each of the airports and assesses the growth plans of each of the airports as presented in their master plan documents.

*Section Seven, Current Economic Impact;* an estimate of the current direct and indirect economic impacts of each of the airports.

*Section Eight, Economic Impacts to 2015 and 2030;* applies the same methodology to the airports' growth plans, as articulated in their master plans (or alternative supporting documentation), for the period to 2015 and then to 2030 as a way of providing a range of employment and economic impact estimates.

*Section Nine, The Competitiveness Agenda,* uses secondary literature and previous research to outline the role that airports have in facilitating growth in a modern and flexible economy.

**Conclusions,** provides a brief summary of the report's main findings.

### Appendices

# CHAPTER 1: PAST AND FUTURE DRIVERS OF AIR TRAVEL

This section sets out the overall policy context. There are three main aspects to this context setting – UK aviation policy, UK and EU environmental policy and general economic and transport economic policy. Full commentary is contained in Appendix 1. Here, we briefly outline the main relevant policy pointers.

## 1. POLICY CONTEXT

The *White Paper 'The Future of Air Transport'* sets out the framework for the development of airport capacity in the UK over the next 30 years. It sets out a policy framework which will help to inform decisions on future planning applications as well as setting out the case for future expansion at airports across the country. The White Paper concludes that there is significant potential for growth at South West airports, with the main potential at Bristol.

The *White Paper Progress Report* published in 2006 looked at the changes in the market since 2003. It reaffirms the commitment to a proper balance being struck between economic, environmental and social considerations. The report states that aviation should meet its full external costs and responsible growth should predominantly make best use of existing capacity and supporting targeted capacity increases.

We feel that the proposed inclusion of aviation in the EU Emissions Trading Scheme, from the period 2010/2011, could result in additional cost implications for airlines. We expect that part of this additional cost burden could be passed on to consumers and could dampen future growth.

Nevertheless, passenger forecasts at a national level remain extremely robust. The Department for Transport (DfT) projects that passenger numbers will grow from current levels of approximately 230 million passengers per year (mppa) to 465 mppa in 2030 if capacity is constrained. Even by factoring in the effects of higher environmental costs onto consumers, growth remains strong.

'*The Stern Review of the Economics of Climate Change*' projects that between 2005 and 2050, emissions are expected to grow fastest from aviation (tripling over the period, compared to a doubling from road transport). It estimates that aviation's share of total emissions will increase to 2.5 per cent by 2050, or 5 per cent if taking account of warming effects. Whilst the Stern Review does not have a direct impact upon aviation, it provides a framework for the Government's position on addressing external environmental costs.

'*The Eddington Transport Study*' essentially advocates the increasing importance of transport in an evolving and increasingly inter-connected global economy. It specifically argues that transport has a key role in improving productivity and, importantly, that limits to transport capacity can present a constraint when an economy matures. However, it highlights that there is little evidence on the precise contribution of transport to productivity.

It argues, however, that the role of transport will increase as global trade continues to increase. It could be argued that the Study's overall position is that adequate capacity will be necessary, even with the full environmental costs reflected in prices, to support the growth that is likely in trade. As globalisation accelerates, aviation has a crucial part to play in maintaining the UK's strengths in import and export, trade and service industries.

This section outlines how the regional air travel market place has altered significantly over the past decade. It outlines what have been the main drivers for growth. Full commentary is contained in Appendix 2.

## 2. THE CHANGING REGIONAL MARKETPLACE

The structure of the regional air travel market place has changed dramatically in the past few years. The growth in regional air services can fundamentally be attributed to the liberalisation of European air services from 1993. This allowed new and existing airlines to exploit new opportunities and gave rise to the rapid expansion of No-Frills Carriers (NFCs). The NFCs have changed the nature of the short-haul airline business in Europe, both in terms of the price and the product offering.

This has unlocked latent demand from passengers who were keen to travel from their local airport, rather than via London or some other connecting point. In response, regional airports began to change the way they viewed their operations, sometimes spurred by a move from public to private sector, but even where still in public ownership, taking a more commercial approach, pricing competitively and more actively seeking out new air services – thus creating a “virtuous circle” which facilitates continued growth.

We argue that the change has largely been driven without the need for large scale injections of public money. Whilst there have been examples of strategic investments by the public sector, the change in the market has been predominantly driven by commercially focused airlines, supported by airports. This has largely been private sector led market growth.

We feel that future growth in regional air services will continue to be driven through the market operating effectively in an increasingly liberalised and competitive environment.

We expect that there may be further consolidation (or possibly exit) among the NFCs, particularly if they continue to compete intensely. We also expect that competition will continue to increase between airports. There will be ‘losers’ in this increased competitive environment. There is no reason to expect that both the airport and airline markets are different from any other product market. Whether this will result in the closure of regional airports is unclear.

Therefore we take the view that the competitive environment between both airlines and airports will, at least, remain as strong as it stands today. This will continue to lead to benefits to the overall consumer, although there may be some localised ‘losers’.