

Connecting to Succeed: Air Transport, the Economy and Competitiveness

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1 Introduction

This paper originally formed the basis of Glasgow Airport's response to the Department for Transport's (DfT) consultation on the draft aviation policy framework. In addition to providing a robust evidence base and understanding of the issues at play within the aviation industry, it examines Scotland's unique reliance on air travel and how its connectivity does not compare favourably with competitors. The paper then considers the relationship between commerce and connectivity and the role external transport links play in trade, tourism and investment decisions. Finally, it highlights the challenges facing policy makers and the key issues that need to be addressed if aviation is to play a positive role in the economic recovery.

While this paper is based on work undertaken by the author for Glasgow Airport's response to the Department for Transport's (DfT) consultation on the draft aviation policy framework, it is the author's personal perspective and does not necessarily reflect the position of Glasgow Airport Limited.

2 Scotland's Connectivity

By virtue of its location at the northernmost part of Britain in the north western corner of Europe, Scotland has historically depended upon a succession of modes of transport to connect with other parts of the British Isles, Europe and beyond. From ships plying the Atlantic trade routes in the eighteenth century to the Victorian railway system linking Edinburgh, Glasgow and London, transport infrastructure has driven the country's development and established Scotland's place in the world. This flow of people, capital and trade has intensified over time, and good connectivity has in many ways come to define the modern concept of globalisation. While digital communication has changed the way we think about connectivity, studies confirm the continuing importance of 'face to face' contact. This paper will go on to articulate why physical connectivity is important, but presently we will consider Scotland's baseline connectivity performance, including how this compares with other places.

Figures 1, 2 and 3 show an analysis of relative connectivity by road, rail and air undertaken by the European Spatial Observatory Network¹. It can be seen that Scotland is one of the least accessible regions of Europe by road and rail. Air accessibility fares somewhat better, but still not as good as the more centrally located regions that benefit from good accessibility across transport modes

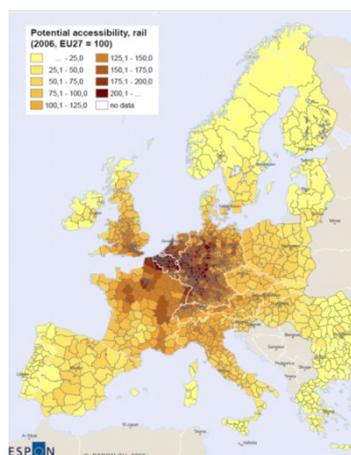


Figure 1: Accessibility by Road

Figure 2: Accessibility by Rail

Figure 3: Accessibility by Air

York Aviation² produced a report on behalf of Aberdeen, Edinburgh and Glasgow airports analysing the impact of Air Passenger Duty on Scotland. The report incorporated an analysis of the country's connectivity. Table 1 shows that, despite being dependant on air travel for connectivity, Scotland lags behind other European nations, including those that benefit from inherently better accessibility by road and rail. It also highlights the connectivity gap between Scotland and the rest of the UK.

Table 1: International Cities Served by Country

Table 2 shows that there was a significant improvement in the number of destinations served by Scotland's airports between 2002 and 2009. However it also shows that there has been a decline since 2008, coinciding with various factors including the recession, increasing APD and the scrapping of route development support in 2007.

Table 2: Number of International Scheduled Destinations Served by Scotland's Airports

Table 3 shows the results of another study³ undertaken by York Aviation on behalf of Glasgow Airport, in partnership with Scottish Enterprise, Renfrewshire Council and Glasgow City Council. It clearly highlights the relatively poor connectivity of both Glasgow and Edinburgh, compared to other European cities.

Table 3: The Relative Connectivity of Edinburgh and Glasgow

Looking at long-haul, shows the relatively small number of services operating directly from Scotland's principal long-haul airport, Glasgow, in comparison to the larger airports in the south east of England and, to a lesser extent, Manchester.

	>250 Departures	>100 Departures
Heathrow	62	83
Gatwick	11	20
Manchester	10	12
Birmingham	2	5
Glasgow	2	4
Luton	1	1

Table 4: Long-haul Scheduled Services from Selected UK Airports in 2010

Research undertaken by the CAA⁴ considers the extent to which Scotland is dependant on hub airports for in-direct connectivity. Table 5 illustrates that, while the majority of international passengers from Scotland travel directly to their destination, a significant proportion travel via another airport, primarily Heathrow. This equates to approximately 40% of international and 70% of long haul passengers overall.

Table 5: Hubbing by International Passengers from Scottish Airports

The World Economic Forum (WEF) Global Competitiveness Report 2012-2013⁵ includes infrastructure as one of its twelve pillars of competitiveness and ranks the United Kingdom's aviation network (measured in Available Seat Kilometres) third in the world behind the USA and China. It is clear that a large part of this connectivity is provided by Heathrow. For example, Heathrow serves 183 destinations (including the 83 long-haul routes noted above). Scotland's three main airports collectively serve 161 mainly domestic and short-haul routes.

In relation to connectivity via Heathrow however, Table 6 shows the declining capacity available on this route from Glasgow Airport as an example. This reflects a wider trend⁶ where UK regional airports are suffering reduced capacity to Heathrow, or in some cases losing this link completely.

Table 6: Seat Capacity (millions) Between Glasgow and Heathrow, 2000-2011

Summarising the evidence above, Scotland's relative geographic peripherality means the country's accessibility is largely dependant on air travel. Despite this, it is clear that Scotland and its cities exhibit a connectivity deficit when compared to other UK and European locations.

The air connectivity deficit is mitigated somewhat by the ability of travellers to connect via hub airports. However the capacity of links to the UK's only hub, Heathrow, has reduced significantly, compromising the long term viability of its role as a hub for Scotland and the onward connectivity it provides.

3 Connecting to Compete

The previous section concluded that Scotland has a connectivity deficit relative to other places. This section answers the inevitable 'so what' question by highlighting the importance of connectivity as articulated by a range of academic reports, business surveys and policy objectives.

Of course, aviation contributes to prosperity in its own right. It is estimated that aviation accounts for €78.9 billion (5.0%) of UK GDP⁷, with Glasgow Airport alone contributing nearly £200m and supporting over 7,300 jobs.

The Chicken or the Egg?

Prominent economist Dr Irwin Stelzer said "*commerce follows connectivity, or at least is closely related to it*". Of course, it would be wrong to suggest connectivity alone creates trade. However, a substantial evidence base strongly supports the contention that connectivity plays a key role in levels of trade, tourism and investment decisions.

Cushman and Wakefield's European Cities Monitor⁸ is an annual survey of senior executives from 501 European companies that provides an "overview of the perceptions that corporations have about cities across Europe and their relative attractiveness". It offers both an insight into the locational factors that influence investment decisions, and how cities compare against each other on these factors.

London, Paris and Frankfurt have consistently been ranked as the first, second and third best cities to locate a business since the survey commenced in 1990. This ranking is mirrored in the 'external transport links' and 'easy access to markets' measures.

Glasgow and Edinburgh occupy 30th and 31st positions overall, with both these positions representing a slip down the rankings from the 2010 survey. In terms of external transport links, Glasgow ranks 18th and Edinburgh 25th. For 'easy access to markets' they rank 25th and 32nd respectively.

When asked about which factors they consider when deciding where to locate their business and the relative importance of these factors, respondents to the European Cities Monitor survey have consistently included 'external transport' links and 'easy access to markets' within the top four essential factors.

CBI/KPMG⁹ published their second infrastructure survey of 568 businesses across the UK. Key findings include:

- A large majority (over 80%) of firms see the quality and reliability of transport and digital infrastructure as significant considerations in investment decisions. Businesses attach the greatest weight to transport infrastructure but digital networks are of growing importance and are a major consideration for the smallest firms.
- 65% of respondents say that the UK's international transport connections are crucial or significant for their future investment decisions.

A survey for Invest Thames Gateway¹⁰ examines the role of transport in competitiveness. It found that 81% of respondents believed that the quality of the transport network has become more important to locational decisions. Reasons for this include:

- 52% felt that the globalisation of businesses and the dynamics of modern supply chain management increased the need for efficient networks.

- 46% said even with IT networks, there is no substitute for face-to-face contact with business partners, clients and other stakeholders.

An ODPM study¹¹ analysing the competitive position of English core cities concluded that the key characteristics of competitive European cities included 'Connectivity – internal and external'. This study followed a comprehensive investigation into the role of aviation in regional economic development by the Department for Transport¹². Conclusions from this study included:

- Air-travel routes from UK regional (core) cities are likely to be a facilitating factor in economic development in a variety of ways.
- Direct air routes to other European cities are also likely to produce significant growth in the tourism sector in core cities.
- For both UK Cities and EU Cities there is a strong correlation between regional or city GDP and aviation connectivity.
- There is a strong correlation between employment in Air intensive sectors and aviation connectivity.
- There is a strong correlation between incoming visitors and aviation connectivity amongst EU Cities.

Frontier Economics prepared a report¹³ for Heathrow Airport looking specifically at the role of that hub airport in the UK economy. In doing this, the authors also considered what they termed the 'virtuous circle between trade and connectivity'. One of the findings of this work was that the UK trades about 20 times as much with Growth Market economies with daily (or better) direct flight connections as it does with countries with poor connectivity.

Oxera¹⁴ published a useful overview of what connectivity is, and what benefits arise from good connectivity. It summarised the wider mechanisms through which connectivity can help the economy as:

- Place competitiveness. Places that are well connected are more attractive for firms that conduct a significant amount of trade, and hence may receive more investment.
- Agglomeration. Agglomeration occurs where groups of companies cluster together in the same geographic area. Benefits can arise in these circumstances as a result of higher employment density, with more business interaction, faster exchange of ideas, more efficient matching of workers to jobs, and generally greater market efficiency, leading to higher average productivity.
- Labour and product market competition. The easier it is to travel to a particular place, the more firms are able to compete effectively in that area. This in turn increases efficiency and should lower prices and increase output.
- Network effects. Adding connections can increase the traffic on the whole network by more than the new connections themselves – that is, adding an international flight to or from a country's main airport may increase passengers on domestic flights into or out of that airport who are connecting with the new international flight.

Finally, work by the CAA¹⁵ found a strong correlation between the countries business people travel to and the UK's success in trading with them and, from a pan-European perspective, the aforementioned ESPON study states:

“It can be concluded that high level accessibility has a strong relation to economic development of regions.”

These are merely a small sample of the vast array of surveys and studies that suggest an inextricable relationship between connectivity and economic success. We now consider the prevalence of connectivity in policy objectives from the European to the local level.

Europe

At the European level, connectivity is a core component of various policy objectives ranging from territorial cohesion to the single market and international trade. In its White Paper¹⁶ on transport, the European Commission recognises that:

“Transport is fundamental to our economy and society. Mobility is vital for the internal market and for the quality of life of citizens as they enjoy their freedom to travel.”

“The future prosperity of our continent will depend on the ability of all of its regions to remain fully and competitively integrated in the world economy. Efficient transport is vital in making this happen.”

The EU's Green Paper¹⁷ on territorial cohesion states:

“Transport policy has obvious implications for territorial cohesion through its effect on the location of economic activity and the pattern of settlements. It plays a particularly important role in improving connections to and within less developed regions.”

EU trade policy predicts that by 2015, 90% of world growth will be generated outside Europe¹⁸ with a third from China alone. The EU27 is the biggest exporter in the world, with exports contributing some 13% of EU GDP. The EU is also recognised as one of the most important providers and hosts of Foreign Direct Investment (FDI).

UK

Following a double dip recession, the UK Government has been attempting to ‘rebalance’ the economy. The Plan for Growth¹⁹ aims to:

“encourage investment and exports as a route to a more balanced economy [by]... ensuring the UK remains one of the top destinations for foreign direct investment (FDI)... increasing exports to key target markets... increasing in private sector employment, especially in regions outside London and the South East...”

Taking exports as an example, 40% of the UK's exports by value travel by air²⁰. In its five year strategy²¹, UK Trade and Investment, taking a lead from the Plan for Growth, emphasizes the twin pillars of ‘growth from exports’ and ‘growth from inward investment’. We know that both export and inward investment success are predicated on an effective air route network.

It has been estimated that the tourism sector contributed £115 billion to the UK economy in 2009²² – equivalent to 8% of UK GDP. The ONS International Passenger Survey²³ confirms that 72% of inbound visitors arrive by air and account for 83% of all inbound visitor spend. The UK Government's Tourism Policy²⁴ aims to attract four million extra visitors to Britain over the next four years. As airline seat capacity from international tourist markets to the UK increased by only 3% between 2006 and 2010, compared to 5% and 6% in higher ranked destinations Germany and France, it is unlikely that the Tourism Policy's objectives will be fulfilled anytime soon.

Scotland

Sustainable economic growth has been central to the SNP Government's agenda since its election as a minority administration in 2007 and subsequent majority following the 2011 election. The SNP Manifesto ²⁵ highlights the links between internationalisation, connectivity and economic growth, stating:

"We want the world to see Scotland as a great place to visit and a great place to invest. We have ambitious plans for international activity, with a particular focus on increasing exports, tourism and economic growth as we set out elsewhere in this manifesto."

A refreshed Government Economic Strategy²⁶ was published in October 2011 to reflect challenging global economic circumstances. The Strategy identifies a number of priorities to 'accelerate economic recovery' and 'develop a more resilient and adaptable economy'. The 'Supportive Business Environment' priority includes an action to:

"[Promote] Scottish exports to capitalise on the significant opportunities in growth markets; with an ambitious target to deliver a 50% increase in exports by 2017".

With this in mind, a study²⁷ for the (then) Scottish Executive found that:

"Although the amount of air freight traffic handled by Scottish airports is relatively modest in terms of weight (around 75,000 tonnes in 2004), when measured in value terms it represents a significant proportion of the country's international trade."

This suggests that there is much work to do in providing the connectivity to enable exports to be increased by 50%. Looking more closely at where Scottish exports are going also emphasises the need to improve connectivity. Table 7 is taken from the Global Connections Survey²⁸ and shows the changing dynamics of where Scotland is exporting to. Most obvious is the increasing importance of markets outside of Europe.

Table 7: Scottish Exports by Destination, 2002-2010

The Economic Strategy also highlights the role played by Scotland's cities in driving economic growth. This is further elaborated in the Cities Strategy²⁹ which notes:

"International connections are also critical to support growth and we will continue to press for these, whether in relation to direct flights, better air links through Heathrow... We cannot change the physical distance between Scotland's cities, or between Scotland and the rest of the world, but transport improvements, combined with good digital connectivity, shrink the effective distance, changing the way Scotland's labour, consumer and business to business markets operate."

From attracting more visitors to supporting key growth sectors and making our cities competitive, the thread of air connectivity runs throughout the Scottish Government's sustainable economic growth agenda.

Glasgow

And so to Glasgow, Scotland's largest city with the most number of businesses (28,515), most jobs (561,000), highest economic contribution (£24.9 billion) and greatest amount of export activity (25% of all Scottish exports).

The final report³⁰ of Glasgow's Economic Commission examines and identifies the greatest economic and employment growth opportunities for the city. However, in contrast to other documents, it fully recognises the unique role played by air connectivity and seeks to integrate actions which are a prerequisite to achieving growth. The report states:

“If Glasgow and the wider city region are to be able to effectively trade with the global economy the priority must be to focus on developing international - especially business-relevant - air services... For Glasgow businesses to successfully engage with and grow within markets in the developed economies (e.g. EU, US) as well as emerging markets (e.g. South East Asia and ‘BRIC’ countries) it is vital that Glasgow is able to efficiently connect to the rest of the world.”

To conclude, Glasgow's economic policy is clear in making the links between future economic success and the need to improve air connectivity. Other levels of policy, while still largely dependant on air connectivity to succeed, have not made the link quite as explicit. As a result, some policies appear contradictory (for example European state aid rules preventing route development support which promoted Scottish cohesion through improved accessibility), while others appear disjointed (for example the UK Government seeking to increase the number of visitors to the UK while already high APD rates increase and airline seating capacity decreases).

4 Challenges

The evidence above demonstrates the importance of connectivity and Scotland's relatively poor performance in this area. Some of the key challenges that need to be adressed to improve performance include:

- Air Passenger Duty (APD)
- Route development support
- Hub access

Air Passenger Duty

Each increase or change to the structure of APD has resulted in a widening of the gap between potential and actual passenger demand. Due to the size of the market, Scotland will always find it difficult to attract and sustain new routes and this situation is compounded even further by APD which simply serves to artificially depress demand.

A separate report by York Aviation for Scottish Enterprise which examined the economic benefits of new air routes confirmed that one of the key challenges facing stakeholders involved in route development in Scotland is the scale of markets, particularly in relation to long haul services. The report stated:

“Put simply Scotland is a relatively small country with a population of only around 5.2 million people, albeit the great majority (around 4.3 million) are concentrated within a 90 minute catchment area of either Glasgow or Edinburgh airports.”

Table 8 below illustrates this issue. It shows the total number of passengers travelling to or from long haul destinations in 2009 from Scotland’s main airports (Scotland), the UK’s largest regional airport, Manchester, (North of England) and Heathrow’s core catchment (London & the South East).

Long Haul Passengers	
Scotland	2,700,000
North of England	5,300,000
London & the South East	17,400,000

Table 8: Long-haul Passengers from UK Regions in 2009

The Government recently agreed to reduce the long haul APD rate to the short haul rate due to what it termed the ‘unique challenge facing Northern Ireland’. Unfortunately the only difference between Scotland and Northern Ireland is that, if Belfast lost routes to Dublin due to APD, at least the people of Northern Ireland could still feasibly benefit from the connectivity provided by Dublin. This is not the case when Scotland loses out to other European airports due to APD.

Route Development Support

Scotland faces considerable challenges in securing the routes which enable its economy to flourish. When considering where to place aircraft, airlines base their decisions on passenger demand and operating costs, which immediately places Scotland at a disadvantage.

Over and above APD, airlines have to travel longer distances to Scotland and in doing so consume more fuel. It is necessary, therefore, to incentivise airlines to serve Scotland rather than competing countries. This is currently prevented by the strict application of EU state aid rules.

Scotland’s previous route support scheme benefitted the economy to the tune of £53 for every £1 invested. The impact of the ARDF is illustrated by Table 2 which shows there was a marked increase in the number of international scheduled destinations served by Scotland’s airports between 2002 and 2008.

Emirates’ direct service from Glasgow to Dubai, which was launched in 2004 and which was increased to a double daily service as of Friday 1 June 2012, was introduced as a direct result of ARDF support. From a starting point in 2004 Emirates’ Dubai route has proved a huge success, generating over £164 million to date for the local economy and bringing more than 687,000 inbound passengers to Glasgow.

It is estimated that the twice-daily service will deliver economic benefits of around £33 million, with almost 140,000 additional inbound passengers in 2012 alone. Over the next five years the route is estimated to be worth more than £200m, bringing more than 846,000 inbound passengers to Glasgow and Scotland through to 2016.

It is routes such as this which enable Scotland to maintain and increase its global competitiveness by allowing companies to access and trade with markets such as China, south-east Asia and India.

However, in the absence of any form of route development support, Glasgow and other Scottish airports will continue to lose out to competing airports and will struggle to provide the connectivity which is so vital.

Hub Access

International connectivity, and particularly long haul connectivity in the UK is dominated by Heathrow. Whilst Glasgow Airport will actively seek to secure direct links and links with other hub airports, the fact remains that Heathrow still offers the greatest number of onward connections and frequency of feeder services.

The issue of increased competition for slots at Heathrow is having a detrimental impact on the ability to satisfy passenger demand to and from Scottish airports. This was exacerbated by bmi's decision to withdraw its Glasgow to London Heathrow service in March 2011 and Aberdeen and Edinburgh services a few months later. Glasgow Airport now only has nine flights per day compared to the 16 that were in place prior to bmi's withdrawal.

In a survey of leading Scottish businesses carried out by the Scottish Council for Development and Industry (SCDI) in 2011 respondents were asked about the importance of access to Heathrow. The survey found that:

- 67% of respondents stated that the loss of bmi's Glasgow to Heathrow service had a large degree or some degree of impact on their business
- 65% said their business would suffer a high to severe impact if there was a further reduction in or discontinuation of services to Heathrow
- 67% said the ability to be able to connect through Heathrow has a high to some impact on their business decisions.

The survey makes clear that Heathrow remains the dominant airport for onward connectivity from Glasgow. The SCDI survey concluded:

"With London at least four hours travel by land based transport, air travel is particularly important for Scotland to access London and the UK's hub airport. For northern Scotland, surface journey times to London are nearly double and, even if high-speed rail is eventually developed to Central Scotland, they will remain uncompetitive over this distance. Aviation policy should seek to improve connectivity for more peripheral areas for their businesses to succeed in the global economy, including ensuring access to London and the UK's hub airport."

Of course, the loss of capacity to Heathrow from Scotland and the resulting inability to satisfy passenger demand also reduces the level of 'feeder traffic' travelling between Scotland and Heathrow. This vicious circle compromises the role of Heathrow as Scotland's primary hub.

5 Conclusions

Evidence suggests that Scotland and its largest cities suffer from poor connectivity relative to other UK and European cities and countries. Moreover, there has been a decline in Scotland's international connectivity since 2008, coinciding with various factors including the recession, increasing APD and the scrapping of route development support in 2007. Scotland's connectivity gap is mitigated somewhat by the ability to hub via other airports, primarily Heathrow. However, the capacity of links to Heathrow has reduced significantly, compromising the long term viability of its role as a hub for Scotland and the onward connectivity it provides.

A range of academic reports, business surveys and policy objectives highlight the importance of connectivity to economic performance and competitiveness, particularly in the case of city regions. This importance is referenced to a greater or lesser extent by the policy framework, from European to local level. However, UK and Scottish performance, and the measures required to enhance it, are poorly articulated.

6 Acknowledgements

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