





Northern Ireland Government

Final Report

March 2024













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Executive Summary

Introduction

- 1. In October 2023, the Department for the Economy (DfE) commissioned York Aviation to undertake a review of Northern Ireland's (NI) air connectivity in terms of its ability to support inbound tourism and business growth.
- 2. The project was undertaken in the context of the DfE's economic vision¹ for NI. It provides the basis for the DfE to effectively consider policy interventions that could support the achievement of the economic vision for NI over the next decade. Specifically, improving appropriate connectivity that will enable NI's global sectors through increased inward investment and trade opportunities, and support access to inbound tourism markets.
- 3. Formally, there are two objectives for the project:
 - to identify a set of strategic routes which will help drive inbound tourism and business growth in Northern Ireland (NI); and
 - to identify policy levers available to the Department for the Economy (DfE) to enhance NI's air connectivity.
- 4. However, in seeking to address these objectives, the research has considered a broad range of questions around the air transport market in Northern Ireland. It examines the state of the market in 2023, the roles of the three airports in Northern Ireland, recent trends, how Northern Ireland compares to a range of benchmarks, what the Northern Ireland economy needs in terms of air connectivity to flourish, and provides suggested actions that could be taken to provide support to new route development.
- 5. The report was prepared primarily in late 2023, before the return of the Northern Ireland Government in early February 2024. The return of the Government has brought with it a new Minister at the DfE with a revised vision for economic development in NI. We understand that while the detail of economic policy may change, the broad direction will not. NI will remain an outward facing economy, with a need for increasing international links to grow prosperity. As such, we believe that the messages set out within this report remain relevant and appropriate.

Northern Ireland's Current Air Connectivity

- 6. Each of NI's three airports Belfast International (BFS), Belfast City (BHD) and City of Derry Airport (CoDA) play a key role in Northern Ireland's connectivity.
 - Belfast International Airport the largest of the three offers direct connectivity to a number of domestic destinations in the UK, leisure oriented international short haul destinations, and a few key global cities, such as Paris, Amsterdam and Milan, which helps attract overseas visitors into Northern Ireland;

¹ <u>10x Economy - an economic vision | Department for the Economy (economy-ni.gov.uk)</u>

- Belfast City Airport offers direct connections to key hub airports such as London Heathrow, Amsterdam Schiphol and Frankfurt International, where passengers can connect onto hub airlines' long haul networks. Belfast City Airport is also the best connected airport to other points in the UK and offers greater frequency, more suited to business passengers;
- City of Derry Airport plays a vital role in the North West of Ireland through the provision of "lifeline" routes such as London Heathrow and Manchester, attracting both business passengers and inbound tourists to some extent. Its link to Heathrow provides Derry/Londonderry with both European and long haul connectivity.
- 7. The value of **indirect connectivity is realised with the hub connections** offering from Belfast City and CoDA, connecting to a wide range of important global cities via Heathrow, Amsterdam and Frankfurt.
- 8. Dublin Airport also offers significant direct connectivity to the island of Ireland. In 2019, we estimate that around 2.8 million people travelled to and from NI via Dublin Airport in 2019. It is the main gateway for long haul travel across both Northern Ireland and the Republic of Ireland. Dublin's ability to draw traffic from NI is driven by a number of factors:
 - → its relative proximity to the key population centres in NI;
 - the wider range of services it offers compared to NI airports, around 148 international destinations compared to just 26 from NI, including the only direct long haul services on the island of Ireland. Dublin Airport ultimately handles over three times as many passengers as the NI airports together;
 - the cost advantage enabled by the lack of an equivalent to Air Passenger Duty (APD) at Dublin, which either simply makes fares cheaper or enables airlines to extract greater yields from the Dublin market;
 - the financial advantage offered to Dublin via its ability to sell duty free products into the UK, whereas the NI airports are precluded from the equivalent sales into the EU by the Windsor Agreement;
 - the positioning of Dublin Airport as central to economic development strategy in the Republic of Ireland and its Government ownership structure. Away from Dublin, we would also note the role of the Irish Government in funding some safety and compliance costs at regional airports.

Northern Ireland Air Connectivity Performance Versus Comparator Nations and Regions

- 9. The Irish Sea separation from the rest of the UK means that Northern Ireland is **very well connected in terms of the number of different domestic destinations and frequencies**, and compares well against a group of similar sized cities and sub regions.
- 10. In relation to international traffic, Northern Ireland is lacking the frequency of flights to major hubs such as Amsterdam and Frankfurt and this is a limiting factor for its airports. When compared to other similar sized cities and sub regions, NI compares poorly, with the fewest direct international services, coupled with low frequency.
- 11. We assess that **Dublin Airport, with its large international network, is a key reason for the relatively thin international network from NI's airports**. The need for multiple daily flights to major hub and

business centres would make Northern Ireland airports more attractive options and remove the need for many people to travel via Dublin.

12. With indirect connectivity the range of destinations (in terms of world cities) that can be reached via a one-stop connection are good, but there is room for improvement here with additional frequencies and new non-stop flights to currently unserved airports and global hubs.

Priorities for Route Development

- 13. The DfE's economic vision envisages an economy, largely driven by increased external trade and increased inward investment in high value added sectors. The largest markets for foreign direct investment (FDI) and Trade include North America, Germany and France. Dublin is not seen as a substitute in this regard as the danger remains that FDI and trade will simply focus more and more around Dublin, with NI stagnating.
- 14. The emerging Tourism Strategy recognises the importance of air connectivity, while balancing the need for growth against the financial and carbon costs of that growth. It seeks to focus on markets including North America a priority market and to a lesser extent other large inbound tourism markets such as France and Germany. There are currently no direct services from NI to North America, and a minimal frequency of service to France and Germany.
- 15. There are several downsides to NI-bound tourists entering the island of Ireland through Dublin, which not only may limit the number of visitors choosing to travel to NI, but is likely to reduce their expenditure in NI when visiting.

Priority Markets

Building on the available evidence, there is a strong case for the NI Government to be seeking to support routes in the following main markets in particular:

- North America notably New York;
- France additional Paris frequency;
- Germany additional Frankfurt frequency, and developing services to other major cities such as Munich, Dusseldorf, Hamburg and Berlin; and
- a new service to Copenhagen, providing strong connectivity to the rest of Scandinavia.

It should be noted that this should not preclude support in relation to other opportunities that meet the NI Government's economic development goals. This list simply provides a focus for activity.

Potential Options to Support the Delivery of Identified Connectivity Needs

- 16. Previous reviews of connectivity in NI of this type have recommended a range of possible intervention mechanisms. However, in truth, progress has been limited and there is a need to address the structures and policy framework, as well as the possible methods of intervention, if genuine progress is to be made:
 - the development of an aviation policy for NI is essential to give direction and establish policy rationale. It should ultimately provide the fundamental business case for any intervention;



- → a clear structure of responsibility for aviation policy development within NI needs to be established; and
- → a 'Team NI Executive' should be formed amongst the key public sector agencies to drive forward the policy, with the appropriate high-level resource.
- 17. There are a range of monetary and non-monetary levers open to the NI Government. Non-monetary levers revolve around access to data and intelligence, access to contacts, and the provision of in-kind support. In terms of monetary support:
 - Public Service Obligations (PSO) and marketing support continue to have a role to play in supporting route development but are ultimately relatively limited in their ability to achieve the full range of NI Government's potential goals;
 - the development of a **risk sharing** mechanism, aided by the greater flexibility in the Subsidy Control Act (SCA), has the potential to be more effective, particularly in terms of the development of long haul services, where significant sums may be required to influence decisions.

Key Actions

- Develop and publish an aviation development policy for NI;
- Rationalise lines for responsibility within Government for aviation in NI;
- Establish Team NI Executive to support route development;
- Publicise priorities and engage with airports and airlines;
- Identify budgets for intervention and communicate with industry;
- Explore risk sharing mechanisms in more detail.

1. Introduction

Background

- 1.1 In October 2023, the Department for the Economy (DfE) commissioned York Aviation to undertake a review of Northern Ireland's air connectivity in terms of its ability to support inbound tourism and business growth. The research builds on previous research undertaken in 2019 but considers the Northern Ireland market in a post-COVID context for the first time.
- 1.2 The project was undertaken in the context of the DfE's economic vision². It provides the basis for the DfE to effectively consider policy interventions that could support the achievement of the economic vision for NI.
- 1.3 The report was prepared primarily in late 2023, before the return of the Northern Ireland Government in early February 2024. The return of the Government has brought with it a new Minister at the DfE with a revised vision for economic development in NI. We understand that while the detail of economic policy may change, the broad direction will not. NI will remain an outward facing economy, with a need for increasing international links to grow prosperity. As such, we believe that the messages set out within this report remain relevant and appropriate.

Changing Context for NI

- 1.4 The previous research undertaken by Oxford Economics was published in July 2019. Since that time, there has been significant changes in the context for the NI air transport market:
 - COVID-19 devastated the air transport industry, impacting the financial health of airports and airlines, shrinking route networks, and changing airport and airline competition dynamics.
 While demand and connectivity are coming back strongly, recovery is uneven, and it has changed airline behaviours to some degree. NI's current connectivity, its future needs and the potential to apply policy levers needs to be viewed in this changed context;
 - the form of BREXIT and the future of the UK's relationship the EU is now better understood and there is a more detailed understanding of the policy and legal framework in which NI's airports will be operating. In particular, the Subsidy Control Act published in late 2022 provides the basis for considering potential policy intervention mechanisms with greater clarity than could be achieved in 2019;
 - the rapid rise in the cost of living, fuelled by global supply chain issues and the war in Ukraine, has ultimately impacted on disposable incomes which will likely be knock-on to air transport demand in the short term. This provides further context for consideration of NI's connectivity needs and the potential need for and nature of government interventions in the air transport market to retain and enhance connectivity.
- 1.5 These significant changes drive the need to refresh the previous work but also the need to revisit and re-baseline NI's starting position in terms of connectivity and potential interventions.

² <u>10x Economy - an economic vision | Department for the Economy (economy-ni.gov.uk)</u>

Scope of the Project

- 1.6 Formally, there are two objectives for the project:
 - to identify a set of strategic routes which will help drive inbound tourism and business growth in Northern Ireland (NI);
 - to identify policy levers available to the Department for the Economy (DfE) to enhance NI's air connectivity.
- 1.7 However, in seeking to address these objectives, the research has considered a broad range of questions around the air transport market in Northern Ireland. It examines the state of the market in 2023, the roles of the Northern Ireland airports, recent trends, how Northern Ireland compares to a range of benchmarks, and, ultimately, what the Northern Ireland economy needs in terms of air connectivity to flourish.

Our Approach

1.8 This assessment has drawn from a wide range of sources that provide insight into the air transport market in Northern Ireland. It has included consideration of CAA Statistics, CAA Passenger Survey data, NISRA household survey data, OAG schedules data and Sabre Ticket Sales data. It has also drawn from consultations with a broad range of stakeholders including Northern Ireland's airports, key airlines, InvestNI, tourism organisations and DfE itself.

Structure of the Report

- 1.9 The report is structured as follows:
 - + in **Section 2** we set out an analysis of Northern Ireland's current air connectivity;
 - in Section 3 we consider how Northern Ireland performs compared to a range of comparator nations and regions;
 - in Section 4 we analyse the connectivity needs of the Northern Ireland economy and identify potential priorities for route development to support business and inbound tourism;
 - in Section 5 we examine potential options for the Northern Ireland government to support the delivery of the identified connectivity needs;
 - → in **Section 6** we present our conclusions.

2. Northern Ireland's Current Connectivity

Introduction

2.1 In this section, we consider Northern Ireland's current air connectivity. This acts as a baseline for consideration of Northern Ireland's needs and position compared to key benchmarks.

Location of Northern Ireland's Airports

- 2.2 Northern Ireland currently has three airports serving it:
 - George Best Belfast City Airport (BHD): located in the city of Belfast, primarily serving the catchment area of Belfast and the rest of Northern Ireland;
 - Belfast International Airport (BFS): located to the west of Belfast City and to the south of Antrim, serving the catchment area of the whole of NI; and
 - City of Derry Airport (CoDA): situated to the North East of the City of Derry/Londonderry, serving the North West of Ireland and the North West of Northern Ireland market.
- 2.3 Figure 2.1 below shows the relative location of all three airports in the context of Northern Ireland. It also shows the location and travel times to key centres from Dublin Airport. The role of Dublin in serving the NI market is discussed later in this report. The journey times between the different airports and the population centres highlighted are set out in Table 2.1.

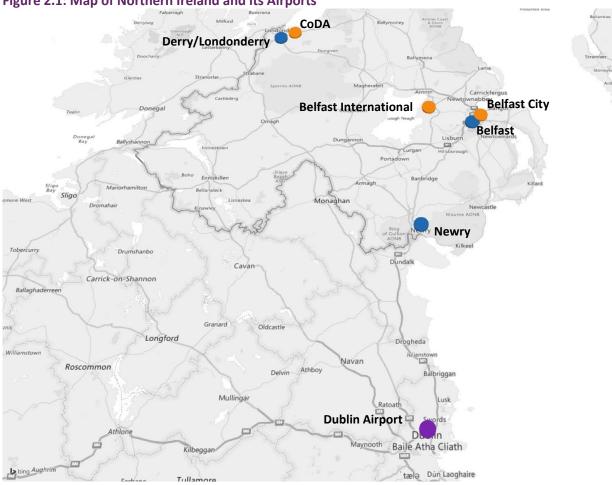
	APT/District	Belfast City Airport	Belfast International Airport	City of Derry Airport	Dublin Airport
	Belfast	10 minutes	27 minutes	1 hour 22 minutes	1 hour 34 minutes
	Newry	53 minutes	58 minutes	2 hours 5 minutes	58 minutes
	Derry/Londonderry	1 hour 20 mins	1 hour 9 minutes	13 minutes	2 hours 45 minutes
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Table 2.1: Journey Times from Key Cities in Northern Ireland to Each Airport

Source: Google Maps.

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Source: Bing Maps.

2.4 Belfast City Airport is located around a 10 minute drive from Belfast city centre. The airport is roughly one hour's drive away from Newry and around 1 hour 20 minutes away from Derry/Londonderry. Belfast International Airport is located to the west of the urban area and more towards the centre of the region, enabling travellers from the entire region to use the airport. The airport is under 30 minutes away from Belfast city centre, around an hour away from Newry, and around 1 hour 10 minutes away from Derry/Londonderry. Whilst City of Derry Airport is located in the North West of Northern Ireland, it is approximately 13 minutes away from the Derry/Londonderry city centre. The airport has a unique catchment where it also serves the North West of Ireland, including County Donegal in the Republic of Ireland, which is 1 hour 20 minutes away from the airport.

Role of Northern Ireland's Airports

- 2.5 Figure 2.2 shows the overall passenger volumes across the three airports in Northern Ireland over time. Historically, Belfast International Airport has been the busiest airport in Northern Ireland, rising from 4.0 million passengers to a peak of 6.3 million in 2019. This growth has primarily been driven by low fare carriers, such as easyJet and Ryanair. Belfast City Airport handled around 2.5 million passengers in 2019, with a mix of full service, regional and low fare carriers. It primarily serves UK domestic destinations with a few international short haul destinations, including a number of major hub airports. City of Derry Airport is smaller than the other two airports with a passenger throughput of around 200,000 in 2019. The airport primarily operates to domestic destinations in the UK with a small number of international charter flights.
- 2.6 Passenger traffic at Belfast International Airport rose by approximately 45% from 4.3 million passengers to 6.3 million between 2012 and 2019, outpacing the UK average growth of 35% over the same period. In comparison, Belfast City Airport achieved little growth, rising by around 10% from 2.2 million to 2.5 million between 2012 and 2019, whilst passenger traffic at CoDA halved from 0.4 million to 0.2 million passengers since 2012.
- 2.7 In the context of recovering from the pandemic, Northern Ireland as a whole is on par with the UK average with a passenger throughput of around 90% of 2019 levels achieved in the rolling year ending October 2023. CoDA has recovered the fastest, with a passenger throughput of 98% of 2019 levels.

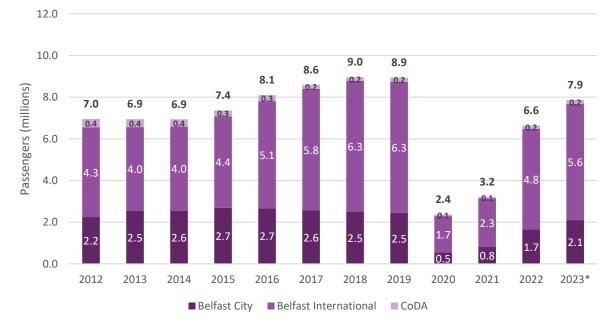


Figure 2.2: Annual Passenger Volumes by Airports in Northern Ireland

Source: CAA Annual Statistics. *Data for 2023 is a rolling year from November 2022 to October 2023.

- 2.8 Figures 2.3 and 2.4 outline the key users by type at each of the three airports using the most recent survey data for Northern Ireland Airports (2019 CAA Survey). The outbound leisure market (i.e. leisure passengers residing in Northern Ireland) was the single largest source of demand at Belfast International Airport, representing around 34% of the entire passenger traffic flying to/from the airport, and reflects the airport's leisure-focussed route network offering. The second largest market is the Great Britain (GB) mainland leisure market (i.e. leisure passengers residing in the GB mainland), representing around 31% of the passengers flown to/from the airport, and equates to approximately 2.0 million passengers. The airport also brings in the highest volume of overseas visitors around 800,000 which equates to about 13% of total traffic. Belfast City Airport has the largest proportion of business passengers flying through the airport (around 45% of the airport's passengers), in part reflecting its more business-orientated network and frequency offer.
- 2.9 CoDA plays a vital role in providing the North West of Northern Ireland with connectivity to other parts of Europe and the Rest of the World through the route to London Heathrow. Around two-thirds of all passengers are inbound passengers (i.e. originate from elsewhere). Passengers from County Donegal in the Republic of Ireland also make up a key proportion of passengers at CoDA.

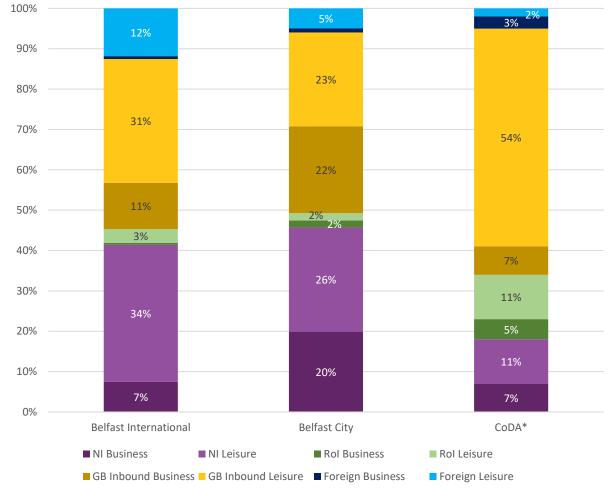


Figure 2.3: Passenger Characteristics at each Northern Ireland Airport (as a % of total passengers)

Source: CAA Passenger Survey 2019.

*Data for CoDA is unavailable and therefore, this data only represents UK surveyed airports at the other end of the route, e.g. London & Manchester.

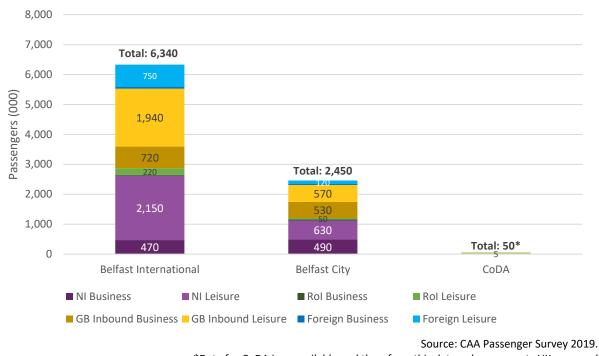


Figure 2.4: Passenger Characteristics at each Northern Ireland Airport

*Data for CoDA is unavailable and therefore, this data only represents UK surveyed airports at the other end of the route, e.g. London & Manchester.

Direct Connectivity

- 2.10 Figure 2.6 outlines the busiest routes in the domestic and international markets from Northern Ireland's airports in 2023. London is the largest market with 829,000 passengers, accounting for just over a third of the domestic passenger market. Other UK regions, such as the North West of England, Scotland, the Midlands and the South, then follow.
- 2.11 Passenger numbers from the three airports to key global cities is relatively low with the majority of the busiest international routes being outbound leisure markets (i.e. sun & beach destinations such as Faro, Majorca, Malaga, Alicante and Tenerife). However, there are flows to a number of key international cities, such as Paris, Amsterdam and Barcelona. The nine busiest international routes make up around 59% of the short haul passenger market, in comparison to the nine busiest domestic routes accounting for around 95% of the domestic market, which indicates that the key points in the domestic market are well served.
- 2.12 The international market is thinly spread, with a significant proportion of international passengers flying to in the "Other Destinations" group around 41% of the total. The majority of this group (around 75% of the traffic volume) are comprised of destinations in Southern Europe, followed by destinations in the long haul westbound market (around 63,000 passengers), long haul eastbound market (around 33,000 passengers) and Northern Europe (around 10,000 passengers). Milan is one such route that features in this group (with a demand base of around 17,000 passengers), which is also an international hub.

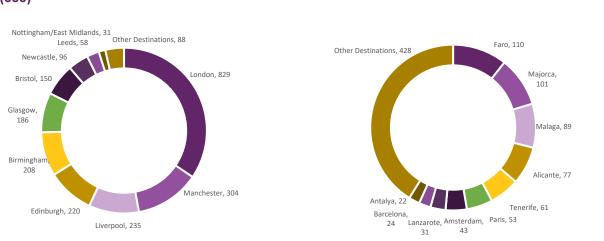


Figure 2.6: Busiest Destinations from Northern Ireland Airports Busiest Destinations – Domestic (000) (000)

Source: Sabre 2023.

2.13 Figure 2.7 outlines the number of unique destinations operated to/from each airport within Northern Ireland with an overall regional offering with a minimum frequency of 1 flight a week. As a whole, airports in Northern Ireland operate to 19 destinations in the UK and 26 destinations in the short haul market (i.e. Europe and North Africa). In terms of domestic connectivity, Belfast City Airport currently provides the best connectivity with 18 destinations. In the international market, it is Belfast International that tops the list with 25 unique destinations. CoDA operated four domestic services in 2023, namely London, Glasgow, Manchester and Liverpool.



Figure 2.7: Number of Destinations Served from each Northern Ireland Airport by Passenger Market

Source: OAG Flight Schedules 2023.

- 2.14 Alongside the breadth of Northern Ireland's connectivity, it is also important to understand the quality of these connections (i.e. frequencies). Business passengers using short haul/domestic services are more likely to prefer a direct connection with sufficient levels of frequency to enable a day return trip.
- 2.15 Figure 2.8 outlines the weekly frequency per destination by market group. As previously seen in Figure 2.6, London is the busiest market to/from Northern Ireland, with close to 200 flights per week. Between the two Belfast airports, the frequency is split between Belfast International (94 weekly flights) and Belfast City Airport (80 weekly flights). In the context of domestic flights to other UK cities, the average frequency from Northern Ireland is around 22 per week (or 3 flights per day) to each destination.
- 2.16 In comparison, the frequency from the two Belfast airports averages around 5 flights per week per international short haul destination. Belfast International Airport primarily serves destinations that are more leisure oriented, where the passenger market requires fewer daily or weekly frequencies. Conversely, Belfast City Airport operates with an average frequency of 5 weekly flights to its two European destinations, Amsterdam and Frankfurt. These are operated by hub carriers, with the Amsterdam service operating 1 daily flight, whilst the Frankfurt service operates 4 weekly services from Belfast. It should be recognised that this level of frequency is low for a hub service and will limit connectivity.
- 2.17 Figure 2.8 shows the average weekly frequency to destinations in the key market segments served from Northern Ireland at an individual airport and at an NI level. This shows the strength of connectivity to the London market, the relatively strong performance to the UK regions, but the weakness of frequency to international destinations. It highlights the clear issue facing NI in terms of the lack of quality direct connectivity to international markets.



Figure 2.8: Average Weekly Frequencies per Destination by Group by Airport

Source: OAG Flight Schedules.

Indirect Connectivity

- 2.18 The other aspect of connectivity is indirect connectivity via hub airports. Hub airports³, such as London Heathrow Airport and Amsterdam Schiphol Airport, offer a wide global network through their respective hub carrier, in these cases British Airways and KLM. Having a direct route, ideally with multiple services per day, to a hub airport allows for a breadth of connectivity that is greater than that served directly to one destination, albeit it is less convenient than a direct service.
- 2.19 Table 2.2 shows the hub connections available to airports in Northern Ireland. Belfast City Airport has three hub connections in the form of British Airways' service to London Heathrow, KLM's service to Amsterdam Schiphol, and Lufthansa's service to Frankfurt. CoDA too, with the codeshare agreement between Loganair and British Airways, is able to offer connectivity to a number of destinations via Heathrow. Although Belfast International has flights to Paris and Amsterdam, these are operated by a low cost carrier that does not offer direct codeshare connections onto other services at the hub airport, meaning that the passenger is likely to be required to collect their baggage and check in again at the hub airport to board a following flight.

Table 2.2: Hub Airports Served from each Airport in Northern Ireland

Airport	Belfast International	Belfast City	CoDA
Hub Access	n/a	London Heathrow Amsterdam Schiphol Frankfurt	London Heathrow

2.20 As shown in Figure 2.9, London Heathrow is the most popular choice of hub airport for almost every market for onward connections. It represents around 58% of domestic and short haul connecting traffic and 90% of long haul traffic. This is ultimately driven by the high frequency of connections to the hub that enable indirect connectivity. As noted above, connections to Amsterdam and Frankfurt are, at present, at a low frequency.

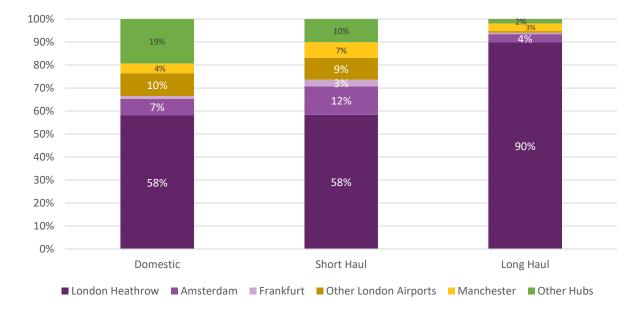


Figure 2.9: Hub Usage from Northern Ireland Airports by Haul (% connecting traffic 2023)

³ A hub connection is defined as a route operating to an airport with a substantive route network operated by one or more key airlines, allowing for passengers to be able to connect onwards to another destination, such as British Airways at London Heathrow and KLM at Amsterdam Schiphol Airport.

2.21 The importance of having flights to hub airports operated by the hub carrier is shown in Figure 2.10. The majority of domestic and short haul traffic flies through Belfast International Airport (72% and 90% respectively). However, the significant majority of long haul passengers travel from Belfast City Airport (96% or 92,000 passengers), flying on hub airline services to London Heathrow, Amsterdam Schiphol and Frankfurt International that facilitate this long haul travel from Belfast City Airport.

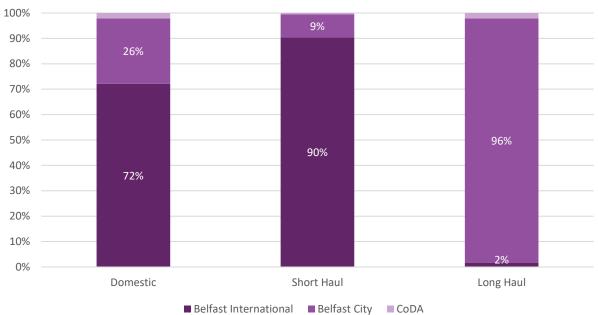


Figure 2.10: Passengers by Market Segment by Airport – Importance of Hub (% of total Pax 2023)

2.22 Further analysis has been undertaken using OAG airline flight schedules. This has been used to analyse the hub connections that are possible from NI airports. Passengers flying to/from Belfast City Airport can make one-stop connections to around 191 unique destinations via Heathrow, Amsterdam or Frankfurt, whilst passengers using CoDA, with its sole Heathrow hub access, can now connect on to around 119 unique destinations.

Source: Sabre 2023.

Source: SABRE 2023 (SABRE 2023 only covers data points between Jan 2023 to October 2023).

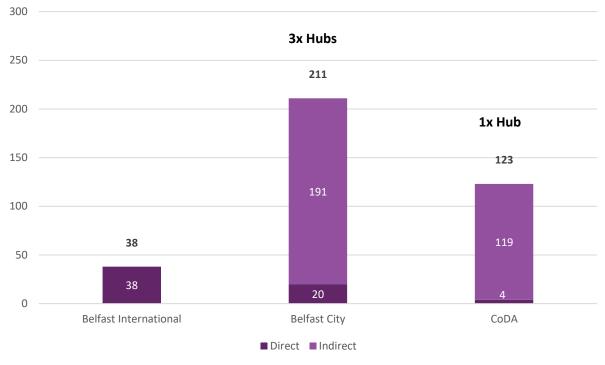


Figure 2.11: Number of Direct and Indirect Destinations from Northern Ireland Airports

Source: OAG Flight Schedules 2023 & York Aviation Analysis.

Northern Ireland's Connections to the World Economy

- 2.23 Figure 2.12 outlines the value of the airports' route networks in terms of their ability to connect the NI economy to key economic centres around the world. This has been done by considering its coverage of world cities, as defined by the Globalisation and World Cities Network (GaWC) in The World According to GaWC in 2020⁴. This is the latest publication in a long series of research into world city formation around the world, including Europe. The research analyses the location decisions of advanced service firms to establish a hierarchy of world cities. Cities are then classified into a series of group rankings starting with Alpha group (the most important global centres) through to Gamma. The analysis here primarily focusses on connectivity to Alpha (London, New York and Beijing to name a few) and Beta cities (e.g. Berlin, Barcelona and Copenhagen), which can considered to be important cities for international business. The full list of cities categorised by GaWC is included in Appendix B.
- 2.24 In terms of direct connectivity, Belfast International Airport provides the most direct connections to Alpha and Beta cities, with a total of 9 cities, four of which are Alpha cities and five Beta cities. Belfast City Airport on the other hand, offers direct connectivity to three Alpha cities and two Beta cities. CoDA offers direct connectivity to London, its only Alpha city connection, and one Beta city.
- 2.25 In terms of indirect connectivity, hub connections from Northern Ireland enable access to around 89 destinations. From Belfast City Airport alone, these hub connections add connectivity to a further 41 Alpha and 42 Beta cities. Similarly, the sole hub connection from CoDA, London Heathrow, adds a further 35 Alpha cities and 34 Beta cities to its connectivity.

 $^{^{\}rm 4}$ Loughborough University, GaWC (2020), The World According to GaWC 2020.

2.26 In total, there are around 50 Alpha cities and 91 Beta cities around the world. Based on the information above and Figure 2.12, it is possible to reach nearly all of the world's Alpha cities on a one-stop or better basis from NI's airports. Coverage of Beta cities is not as strong but still significant. Around 50% of the world's Beta cities can be accessed on one stop or better basis from NI airports.



Figure 2.12: Direct & Indirect (One-stop) Connections to Key Global Cities

2.27 Table 2.3 outlines the top 20 final destinations, where passengers have flown to/from Northern Ireland airports with onward hub connections in 2023. The largest market was to and from New York, with around 11,200 passengers making connections at hub airports. This is followed by Barcelona, with 5,400 passengers and Los Angeles, with 4,200 passengers. The top 20 list primarily features destinations in the USA and mainland Europe.



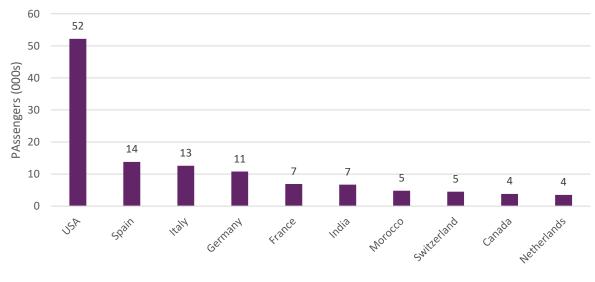
Final Destination	Passenger Volume	
New York	11,200	
Barcelona	5,400	
Los Angeles	4,200	
Orlando	4,200	
Rome	3,800	
Amsterdam	3,500	
San Francisco	3,400	
Dubai	3,200	
Berlin	3,200	
Boston	2,900	
Milan	2,700	
Paris	2,600	
Singapore	2,500	
Washington	2,500	
Geneva	2,300	
Marrakech	2,300	
Miami	2,300	
Copenhagen	2,100	
Mumbai	2,000	
Munich	2,000	

 Table 2.3: Top 20 Onward Connecting Destinations from Northern Ireland Airports in 2023

Source: SABRE 2023.

2.28 This is also reflected in Figure 2.13 below, where USA is at the top of the list for onward connecting destinations by country, with 52,000 passengers. Spain, Italy, Germany and France follow USA with a combined volume of around 50,000 passengers.





Source: SABRE 2023.

2.29 Figures 2.14 to 2.16 show a visual representation of the onward connecting destinations from each Northern Ireland airport using a one stop connection.

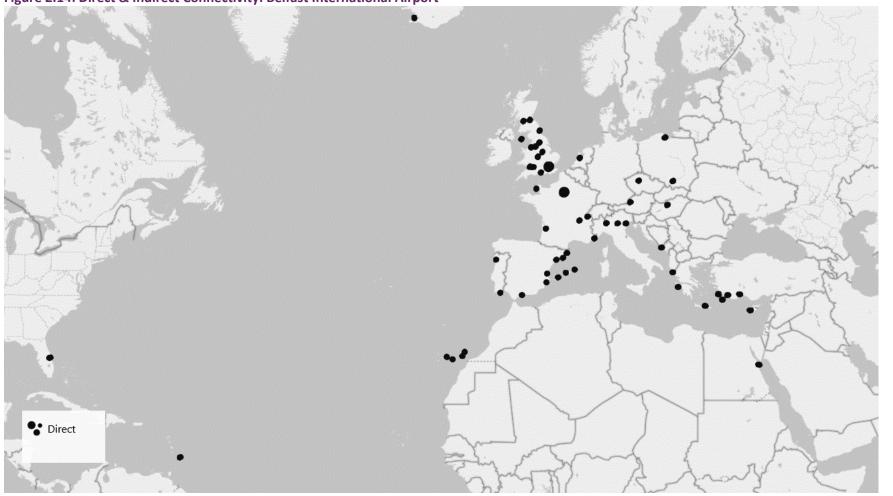


Figure 2.14: Direct & Indirect Connectivity: Belfast International Airport

Source: York Aviation Analysis of OAG Flight Schedules, Bing Maps

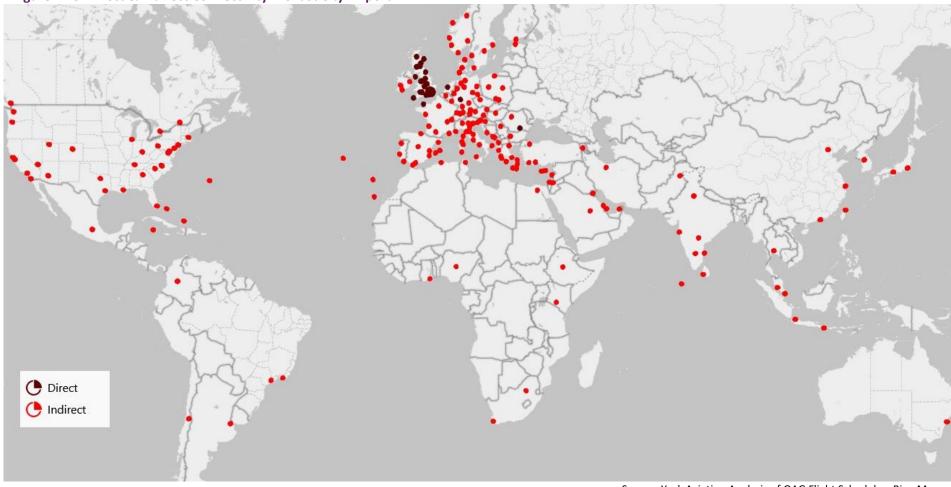


Figure 2.15: Direct & Indirect Connectivity: Belfast City Airport

Source: York Aviation Analysis of OAG Flight Schedules, Bing Maps

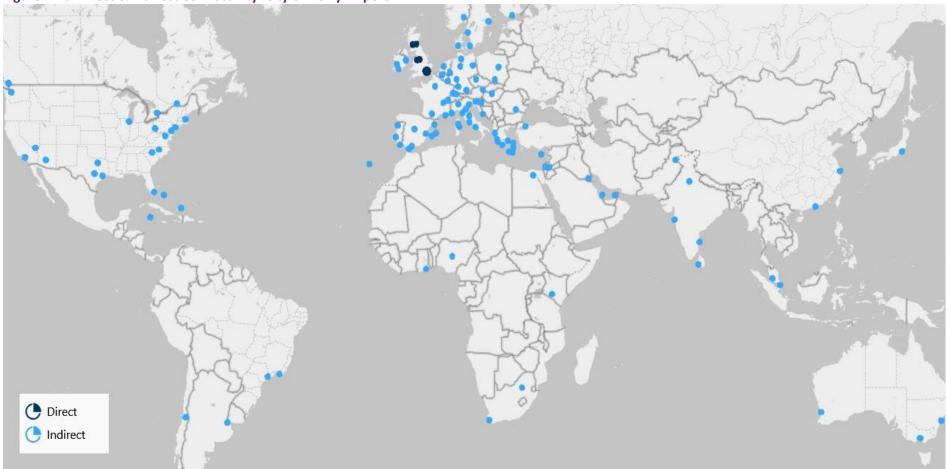


Figure 2.16: Direct & Indirect Connectivity: City of Derry Airport

Source: York Aviation Analysis of OAG Flight Schedules, Microsoft 3D Mapper.

The Role of Dublin Airport

- 2.30 This section considers the role played by Dublin Airport, the busiest airport on the island of Ireland, in serving the Northern Ireland market given its proximity to Northern Ireland and the range of direct flights offered. It also seeks to understand the key differences between Dublin Airport and the Northern Ireland airports in regard to frequency of services, air fares and tourism generation.
- 2.31 Dublin Airport is roughly 1 hour 30 minutes away from Belfast city centre, 2 hours 45 minutes away from Derry/Londonderry and under an hour away from Newry. Geographically, it must therefore be considered as a close competitor for the Belfast airports in particular.

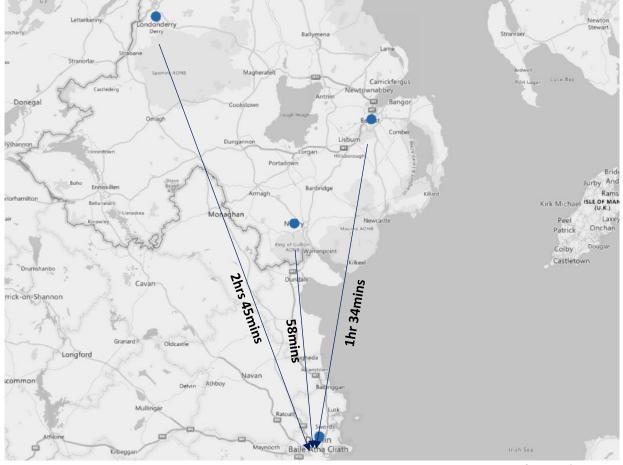


Figure 2.17: Map of Northern Ireland Cities and Dublin Airport

Source: Bing Maps.

Table 2.4: Journey Times from Key Cities in Northern Ireland to Dublin Airport

District	Dublin Airport	Nearest Airport in Northern Ireland
Belfast	1 hour 34 minutes	10 minutes
Newry	58 minutes	53 minutes
Derry/Londonderry	2 hours 45 minutes	12 minutes
	1	Course Coords Maria

Source: Google Maps.



2.32 Figure 2.18 outlines the annual passenger throughput at Dublin Airport between 2004 and 2022. Passenger volumes at Dublin Airport have been growing rapidly since 2010, peaking at 32.9 million in 2019, breaching its current planning cap of 32 million⁵. In common with the vast majority of airports, Dublin Airport was also heavily impacted by the pandemic. However, the airport has swiftly recovered to handling around 28.1 million in 2022, equating to 85% of 2019 levels, and 31.9 million in 2023 (97% of 2019 levels). The airport currently has a planning cap limiting it to 32 million passengers per annum. It has recently submitted a planning application to raise this cap to 40 million passengers. Its growth substantially outpaced that of the NI airports, and it has significantly increased its market share on the island of Ireland over time.

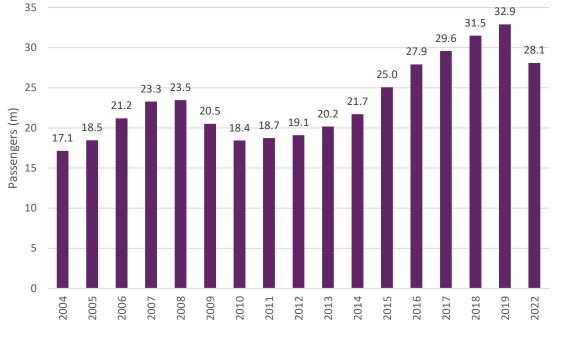


Figure 2.18: Annual Passenger Volumes at Dublin Airport

Source: daa.

- 2.33 Dublin Airport currently offers direct services to around 170 destinations, of which around three quarters are international short haul markets (i.e. mainland Europe and North Africa). This short haul offering is primarily provided by Ryanair's extensive network. Dublin Airport is its second largest and one of the highest yielding bases. Aer Lingus, a member of IAG Group, also offers significant number of direct services to a number of European cities.
- 2.34 Aer Lingus, along with a range of North American and Middle East carriers, provide direct routes to 19 destinations in the Americas and 4 destinations in the long haul eastbound market.

⁵ Dublin Airport operator submits planning application for big expansion – The Irish Times

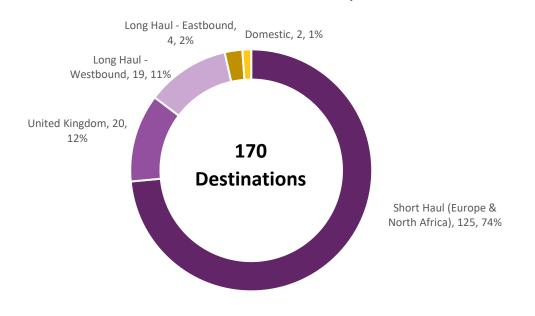


Figure 2.19: Number of Direct Destinations Served from Dublin Airport in 2023

Source: OAG Flight Schedules.

2.35 The difference between the direct connectivity offering from Dublin Airport and the Northern Ireland airports can be seen in Figure 2.20. With a minimum frequency of at least 1 weekly flight, the coverage to mainland UK is nearly the same. However, Dublin has a significant advantage over the Northern Ireland airports in the number of international destinations served. Dublin Airport offers around 100 more direct destinations in the short haul market, 19 destinations in the long haul westbound market and 4 destinations in the long haul eastbound market, compared to none from Northern Ireland. Given this direct connectivity offering and its geographic proximity, it is unsurprising that passengers from Northern Ireland, would opt to fly on a direct service from Dublin Airport rather than connect over another hub airport.

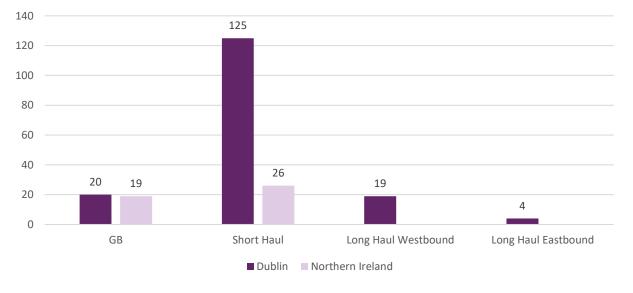


Figure 2.20: Number of Direct Destinations from Dublin Airport vs. Northern Ireland airports

Source: OAG Flight Schedules.

- 2.36 It is not only the number of direct destination offering, but also the frequency to these destinations that counts towards an attractiveness of a route. A comparison of average weekly frequency per destination between Dublin Airport and Northern Ireland Airports is shown in Figure 2.21. This shows that even to fly to London, Dublin Airport offers an extra 119 flights per week (or 17 flights per day). To the rest of the UK, Dublin Airport provides 2 more weekly flights per destination.
- 2.37 In terms of the short haul market, the average weekly frequency per destination is nine flights out of Dublin Airport, or more than one per day, in comparison to a Northern Ireland average frequency of 5 weekly flights per destination. Dublin Airport offers similar frequency to destinations in the long haul westbound and eastbound markets, which makes the airport an attractive choice in comparison to indirect services from Northern Ireland airports via Heathrow, Amsterdam or Frankfurt.

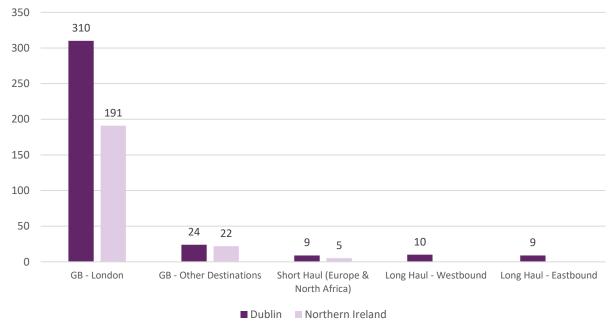


Figure 2.21: Average Weekly Frequency per Destination by World Region

Source: OAG Flight Schedules.

- 2.38 A further analysis has been undertaken to understand the value of Dublin's one-stop connectivity. This is not just in the context of the number of destinations passengers can reach using one-stop from Dublin Airport, but more in the light of key global cities that can be reached from Dublin Airport. This has also been compared against the current Northern Ireland airport offering. A visual representation of Dublin Airport's direct and indirect connectivity can be seen in Figure 2.26.
- 2.39 Figure 2.22 shows the number of Alpha and Beta cities that passengers can fly to/from Dublin Airport directly and indirectly (one-stop connection). In total, passengers can fly to up to 122 Alpha and Beta cities (around 87% of the total 140 Alpha and Beta cities), in comparison to Northern Ireland, where passengers can reach 99 different destinations (around 71% of the total Alpha and Beta cities) on a one-stop or better basis.

2.40 Passengers can reach a total of 49 out of the 50 Alpha destinations from Northern Ireland airports, compared to 47 out of the 50 Alpha destinations from Dublin Airport. However, Dublin Airport provides a direct connectivity to 24 of these Alpha cities compared to just 5 from Northern Ireland. In terms of Beta cities, passengers can reach around 75 out of the total 90 Beta cities from Dublin, in comparison to 50 Beta cities from Northern Ireland. Here again, Dublin Airport provides direct connectivity to 30 destinations compared to just 5 from Northern Ireland. It is clear, therefore, Dublin has a substantial advantage in terms of direct connections to the world economy, and in terms of the overall number of connections to the second tier and emerging Beta cities in the world economy.





Source: OAG Flight Schedules and GaWC.

- 2.41 Dublin Airport also has a pre-clearance facility for US-bound passengers that enables the passenger to arrive into the USA as a domestic passenger, thus avoiding queues at immigration, allowing for a faster exit from the airport, or quicker connections onto another flight in the US. Our understanding from previous work undertaken suggests that this may attract some passengers to use Dublin Airport, notably regular flyers, and is supported by anecdotal evidence received from discussions with some NI stakeholders.
- 2.42 It is therefore, understandable that the larger number of destinations served from Dublin, coupled with the higher level of frequency to many destinations and, for some, the attraction of the preclearance facility, is likely to attract NI resident passengers south to Dublin to commence their journey from there.

- 2.43 We understand that in his statement, presented to Parliament by the Secretary of State in January 2024, in a commitment to boost international connectivity, he advised the Government will enter into exploratory talks with the United States Administration on the options for introducing pre-clearance checks on customs and immigration for passengers travelling on direct flights from Belfast International Airport and destinations in the USA. Whilst this would undoubtedly be a positive step to supporting NI international connectivity, the cost of introducing and running this service could be a significant constraint.
- 2.44 Below, we consider the evidence around the extent of leakage to/from NI to use Dublin Airport. Results from surveys undertaken by Dublin Airport between 2012 and 2015 suggest that passenger leakage to Dublin grew to around 2.4 million passengers per annum by 2015. The reporting on these surveys is not consistent and previous years are almost certainly an underestimate as they are believed to only to refer NI resident passengers, not overseas inbound passengers as well. The surveys also provide data on the routes that NI passengers are using from Dublin. They show that London, New York and Dubai were consistently the three top destinations where passengers originating from Northern Ireland used Dublin Airport to travel to/from.
- 2.45 Given that both New York and Dubai are hub airports, it is likely that some of the passengers flying to these destinations connected onto other points in North America and Asia beyond New York and Dubai respectively. Passengers from Northern Ireland also used Dublin Airport to fly to destinations in mainland Europe, such as Frankfurt, Rome, Copenhagen and Riga.

Rank/Year	2012	2013	2015	
Two-way Passenger Leakage (millions)	1.0	1.2	2.4	
1.	London Heathrow	London Heathrow	London Heathrow	
2. 3.	Dubai	Dubai	New York JFK	
3.	New York JFK	London Gatwick	Dubai	
4.	Frankfurt	Rome	Britain & Continental	
			Europe	
5.	Madrid	Chicago		
6. 7.	Abu Dhabi	New York JFK		
7.	Orlando	London Stansted		
8.	Riga	Copenhagen		
8. 9.	London Gatwick	Frankfurt		
10.	Rome	Abu Dhabi		
Sourson Dublin Airport Proce Delegano DEC Nous				

 Table 2.5: Top 10 Destination Airports for Northern Ireland Originating Passengers to/from Dublin

 Bank/Year
 2012

 2013
 2013

Source: Dublin Airport Press Releases, BBC News.

2.46 Figure 2.23 presents our estimates of the nature of leakage to Dublin Airport by end destination (common to that used to consider Northern Ireland airports) based on analysis of these two sources and inbound tourism statistics from Tourism Ireland. In particular, this extends the analysis to include overseas residents travelling to Northern Ireland. Short haul international routes are, by some margin, the largest source of leakage, followed long haul routes. These short haul international routes have been the key source of the growth of leakage in recent years.



Figure 2.23: Estimated Northern Ireland Market Passenger Leakage to Dublin Airport

Source: York Aviation Estimate.

- 2.47 Figure 2.24 outlines the 10 biggest tourist markets to Northern Ireland and the airports used in 2019. USA was the biggest single source of tourism demand in Northern Ireland with 212,000 visitors. Most of these tourists (87%) flew in to Dublin Airport. Similarly, most tourists from Canada (99%), Australia (93%) and New Zealand (80%) began their Northern Ireland trip by arriving into Dublin Airport.
- 2.48 Germany, France, Spain, Netherlands and Italy also feature in the list, despite there being air services from Northern Ireland to these nations. Overall, it is estimated that Dublin Airport sources nearly 75% of international tourist volumes to Northern Ireland.

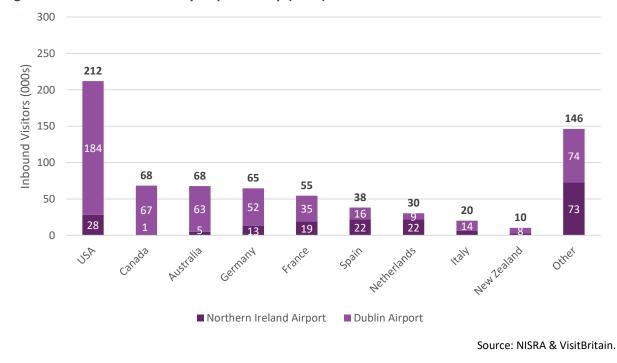


Figure 2.24: Tourist Volumes by Airport Group (2019)



- 2.49 In addition to the broader network, higher frequencies and geographic proximity, there are a number of other factors that should be recognised as regards Dublin's ability to draw traffic away from the NI airports.
- 2.50 A comparison of average air fares between flights operated from Dublin and Northern Ireland shows that those from Dublin are generally lower, especially in the long haul market. This is partly due to the abolition of the Irish Travel Tax in 2014, whilst short haul flights from NI airports still incur an Air Passenger Duty (APD) charge. Figure 2.25 shows this fare differential to different market groups for the top 10 destinations flown to/from Northern Ireland airports in 2023. For the long haul market (both eastbound and westbound), the fares from Dublin are approx. £200-£300 lower than the fares paid to fly from Northern Ireland airports. This is, again, fuelled in part by APD. This is of particular significance in the more price-sensitive leisure markets. This pattern essentially has two implications:
 - for domestic and short haul international markets, where fares are broadly similar, airlines operating at Dublin Airport are in fact extracting a higher yield from the market because passengers are not having to pay APD within the price of their ticket. This means that from an airline perspective it is more attractive to invest in capacity growth at Dublin;
 - ✤ for long haul markets, passengers simply pay less at Dublin and hence it is consistently more attractive to use Dublin despite the additional journey time. This, again, pushes airlines towards consolidating their capacity development at Dublin Airport.



Figure 2.25: Average Air Fares from Dublin Airport and Northern Ireland Airports in 2023

Source: SABRE Fare Data.

2.51 It is also worth noting a number of further points:

 Dublin's role as a hub for Aer Lingus gives the airport an advantage over the NI airports in terms of its ability to develop long haul destinations into North America. Aer Lingus is able to use its short haul network to consolidate demand from across Europe into Dublin and supplement local demand for its long haul services;

- → the UK's exit from the European Union and the subsequent Windsor Agreement has created an imbalance in terms of the airports' ability to generate commercial revenues from passengers. Dublin is now able to sell duty free products to UK bound passengers, which, given the size of the UK market, is a significant potential additional revenue stream. Conversely, NI's airports, under the Windsor Agreement, are barred from selling duty free to passengers travelling to the EU. In other words, Dublin Airport has gained a revenue stream, while NI airports have not. This ultimately impacts on the different airports' abilities to invest in future route development;
- → it is also worth noting the recognition of Dublin Airport's role within the Republic of Ireland's economic strategy and its ultimate ownership by the Irish Government.
- 2.52 Away from Dublin Airport itself, it is also worth mentioning the role that the Irish Government plays in funding safety and compliance costs at regional airports across Ireland. While these airports are ultimately small, it does create an element of competitive imbalance across the island of Ireland.

Conclusions

- 2.53 Northern Ireland has three main airports serving the region, Belfast International, Belfast City and City of Derry Airport. Belfast International Airport is the busiest airport in Northern Ireland with 6.3 million passengers in 2019 and has been the key driver for passenger growth in the region since 2012.
- 2.54 Each of the airports play a key role in Northern Ireland. Belfast International Airport offers direct connectivity to a number of domestic destinations in the UK, leisure oriented international short haul destinations, and a few key global cities, such as Paris, Amsterdam and Milan, which helps attract overseas visitors into Northern Ireland.
- 2.55 Belfast City Airport on the other hand offers direct connections to key hub airports such as London Heathrow, Amsterdam Schiphol and Frankfurt International, where passengers can connect onto hub airlines' long haul networks. Belfast City Airport is also the best connected airport to other points in the UK and offers greater frequency, more suited to business passengers. As a result, Belfast City Airport has a notably high proportion of business passengers using the airport.
- 2.56 City of Derry Airport plays a vital role in the North West of Ireland by the provision of "lifeline" routes such as London Heathrow and Manchester, attracting both business passengers and inbound tourists to some extent. Its link to Heathrow provides Derry/Londonderry with both European and long haul connectivity.
- 2.57 The value of indirect connectivity is realised with the hub connections offering from Belfast City and CoDA. Passengers can connect to 41 additional Alpha cities and 42 additional Beta cities from Belfast City Airport through Heathrow, Amsterdam and Frankfurt. From CoDA, passengers can connect up to 35 Alpha cities and 34 Beta cities through the Heathrow Hub.
- 2.58 Dublin Airport offers significant direct connectivity to the island of Ireland. The airport offers direct services to 171 destinations, some of which are global Alpha and Beta cities. These cities are also well served with generally greater frequency compared to Northern Ireland Airports.
- 2.59 Dublin Airport also offers flights to various hubs in North America and Middle East, meaning that in the overall sense, passengers can get to over 80% of Alpha and Beta cities around the world from Dublin Airport with just one stop. Dublin Airport is the main gateway for long haul travel across both Northern Ireland and the Republic of Ireland.

- 2.60 Long haul fares from Dublin Airport are significantly lower than the fares offered from Northern Ireland Airports, a difference of around £200 in the long haul westbound markets and a difference of around £300 in the long haul eastbound markets, which is likely to influence inbound tourism and long haul travel.
- 2.61 As a result of this extensive network offering at Dublin Airport, it was estimated that around 2.8 million passengers travelled from Northern Ireland to various destinations around the world using Dublin Airport in 2019. Dublin Airport, however, also plays an important role in driving tourism into Northern Ireland. It was estimated that in 2019, around 75% of the international inbound visitors to Northern Ireland arrived using Dublin Airport.

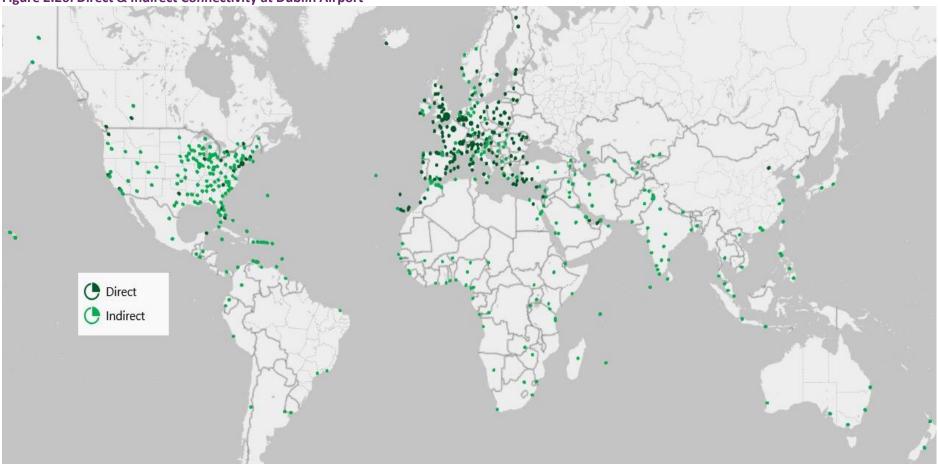


Figure 2.26: Direct & Indirect Connectivity at Dublin Airport

Source: York Aviation Analysis of OAG Flight Schedules, Bing Maps.

3. Benchmarking Results & Connectivity Gaps

Introduction

- 3.1 This section analyses the relative position of the combined airports in Northern Ireland when compared with cities and city regions across the UK and Mainland Europe that have similar population sizes, in terms of the connectivity they offer and, particularly, the strength of their connections to the global economy.
- 3.2 In consultation with the Department for the Economy, the below regions were chosen. The benchmarks chosen are a mixture of regions that are felt to be similar to Northern Ireland currently and those that might be viewed as aspirational benchmarks in the context of the aims of the DfE's economic vision. In a number of cases, regions have been selected where there is a significant airport beyond the borders of the region that acts as a competitor for those regions' airports similar to the impact that Dublin Airport has on NI.

The Benchmark Regions

3.3 The following regions have been identified:

Current Comparators

- Bilbao, Spain similar size in terms of population and GDP. It is also a politically autonomous region peripheral from the main centres in Spain. Pre-pandemic, the airport was a similar size to Belfast International;
- Bordeaux, France (including the Gironde Region) similar in terms of size and GDP, a peripheral region in France with an air transport market similar in size to Northern Ireland. It suffers from the dominance of the Paris airports;
- Glasgow, Scotland similar size in terms of GDP and population. Similar GDP per capita. UK region and similar economic structure. It is peripheral from London and Europe. Air transport market has similar features, Glasgow Airport is a similar size to Belfast International and Belfast City combined, Prestwick is not dissimilar to CoDA. Edinburgh Airport provides the larger competitor nearby;
- Liverpool, England (including Merseyside) similar size in terms of GDP and population. Similar GDP per capita. UK region and similar economic structure. Air transport market has similar features, Liverpool Airport is smaller in size to Belfast International particularly and Manchester Airport is the large competitor within easy reach;
- Newcastle, England (including all of Tyne and Wear region) similar size in terms of GDP and population. Similar GDP per capita. UK region and similar economic structure. It is peripheral from London and Europe. Newcastle Airport is similar in size to Belfast International particularly, but with a broader range of services and Manchester Airport is a large competitor within easy reach; and
- Vilnius, Lithuania (including the entire population of Lithuania). A nation with a similar size of population and economy to Northern Ireland.

Aspirational Comparators

- Bristol, England The population of the Bristol region is similar to Northern Ireland but the GDP per capita is markedly higher. The air transport market at Bristol Airport is larger but not disproportionately so and it suffers from Heathrow being a large competitor nearby;
- Gothenburg, Sweden provides an example of a region of similar population and peripheral location from the capital city and rest of Europe but which is further up the value chain in terms of economic development. GDP per capita is substantially higher; and
- Turin, Italy again a similar population but considerably higher GDP per capita. Similar economic structure and it is peripheral to Rome (albeit closer to Milan as the main business centre). Turin Airport has been a similar size to Belfast International previously and has Milan Malpensa as a large competitor playing a similar role to Dublin.
- 3.4 Throughout this section, the numbers of destinations served are based on flight operations with at least 52 flights per annum, giving the equivalent of at least 1 weekly service on any given route.
- 3.5 Figures 3.1 to 3.3 provide contextual information about the underlying economies of each of the benchmarks. They consider population, GDP and wealth in the form of GDP per capita. In terms of population, Northern Ireland is just above the median population of the group. In terms of the size of the regional economies, Northern Ireland is just under the median GVA for the group. In terms of wealth, it is however noticeable that Northern Ireland is towards the bottom end of the group.

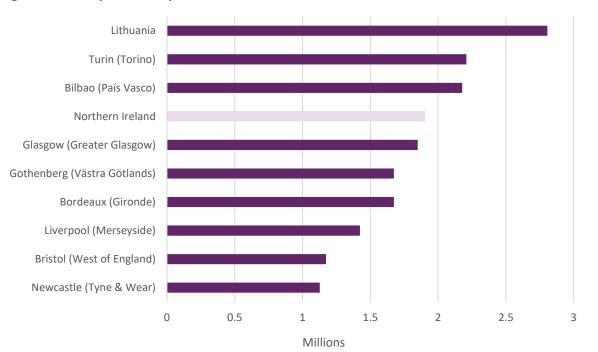


Figure 3.1: Comparative Populations

Source: ONS and Eurostat 2019.

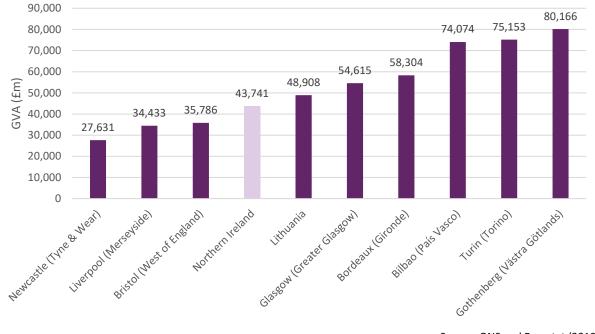


Figure 3.2: 2019 Regional Gross Value Added (GVA)

Source: ONS and Eurostat (2019). ONS Exchange Rate for 2019 GBP:EUR=1.1405.

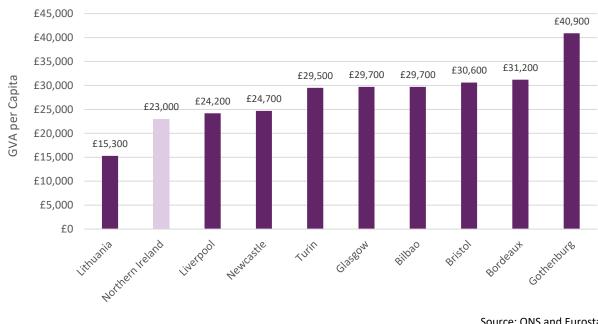


Figure 3.3: GVA per Capita for Northern Ireland and its Comparators in 2019

Source: ONS and Eurostat. ONS Exchange Rate for 2019 GBP:EUR=1.1405.

Passenger Traffic

3.6 Figure 3.4, below, shows the annual passenger traffic for the comparator airports in 2019. This chart clearly shows that Northern Ireland's combined airports have a large demand for air travel compared to other similar sized regions in Europe.



- 3.7 Northern Ireland is separated from all other parts of the UK by water, meaning domestic road and rail connections cannot compete effectively with air travel. None of the competitor airports are surrounded by water, which helps to explain why Northern Ireland compares well against the peer airport group in terms of total passenger traffic. This is especially the case with travel to London Heathrow, its best connected hub airport. This geographic location coupled with an estimated 10 million first and second generation Northern Irish diaspora living across the globe⁶ will certainly be a factor in the demand for air travel.
- 3.8 Northern Ireland has a slightly larger annual passenger figure than Glasgow, despite Glasgow being a better connected airport in terms of long haul operators and hub connectivity. New York and Dubai, which were both served from Glasgow in 2019, are two of the top indirect traffic flows currently from Northern Ireland as was seen in Table 2.3.



Figure 3.4: Annual Passenger Numbers of Comparator Airports

Airline Operators

3.9 Figure 3.5 below shows the number of regular mainline and low cost airlines at Northern Ireland's airports, operating at least 52 flights per annum (i.e. a minimum average of one flight per week). Again here, Northern Ireland is at the bottom end of the group. This suggests that the number of carriers and, ultimately, options for passengers are limited when compared to other similar sized airports. This may also suggest that competition may be limited. However, it should also be recognised that Dublin will act as a significant competitive constraint on Northern Ireland.

⁶ Fearon and Ross recognise work of Diaspora to the economy | The Executive Office (executiveoffice-ni.gov.uk)



Source: CAA Data & Eurostat 2019.

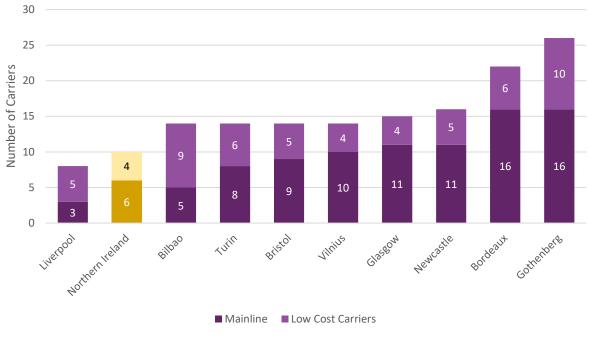


Figure 3.5: Number of Scheduled Carriers Serving the Benchmark Airports

Source: OAG Schedules.

Direct and Indirect Connectivity

3.10 Figure 3.6, below, shows how Northern Ireland compares with its peer group regarding the number of domestic, international short haul and long haul routes in 2023, with at least 52 services per annum. Northern Ireland as a whole is the group leader in terms of domestic routes – primarily driven by the inability for road and rail connections to compete across then Irish Sea, but falls to the bottom of the group for international connectivity. When all 3 groups are combined Northern Ireland remains in the lower half of the benchmarked cities.

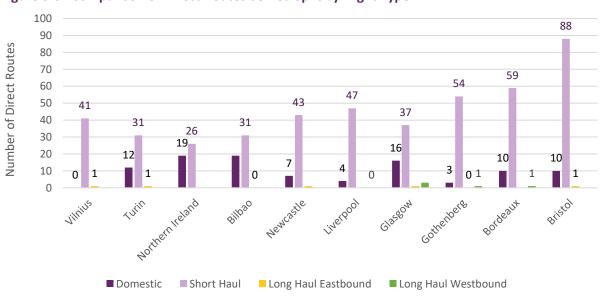


Figure 3.6: Comparison of Direct Routes Served Split by Flight Type

Source: OAG Schedules.

3.11 Figure 3.7, below, shows that despite the low number of hubs served, Northern Ireland has good combined direct and indirect connectivity with the current carrier portfolio.

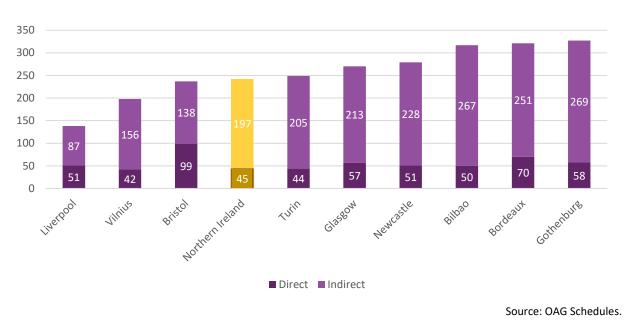


Figure 3.7: Direct and Indirect Connectivity in 2023

Hub Connectivity

- 3.12 Figure 3.8, below, shows the number of major hubs that are directly served from the benchmarked airports. Northern Ireland is only serving 3 hub airports by hub carriers, London Heathrow (British Airways), Amsterdam (KLM) and Frankfurt (Lufthansa), putting it at the lower end of the group. With a population higher than that of the Greater Glasgow City Region, the shortage of major hub connectivity, especially outside of Western Europe, and the lack of frequency will be a key factor in leakage of passengers to Dublin.
- 3.13 The major global hubs of Istanbul, New York and Dubai are three of the most noticeable hubs that are missing from Northern Ireland that feature in the networks of some of the peer competitor airports. This could be due to the close proximity of Dublin, where carriers from this airport have regular and often multiple daily services.



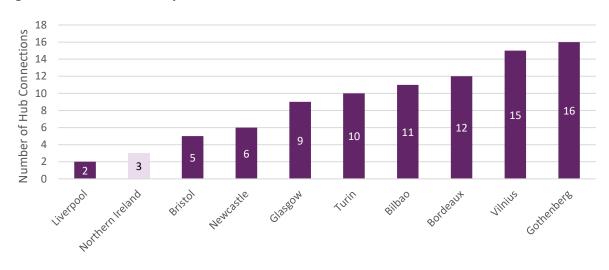


Figure 3.8: Hub connectivity from benchmarked cities

Source: OAG Schedules.

Frequency of Flight Connections

3.14 The frequency of flights is an important factor, especially to major business centres and hub airports. Figure 3.9 below shows that Northern Ireland is at the bottom of the group in this regard with an average of only 4 services per week to any given destination. Glasgow has one of the highest average frequencies per destination of any airport in the group. If multiple daily flights to major hubs can be achieved, traffic is likely to increase as a result of a rise in indirect connecting opportunities, and in addition the higher level of daily services increases the attractiveness of such routes to business customers seeking to take same day business trips.

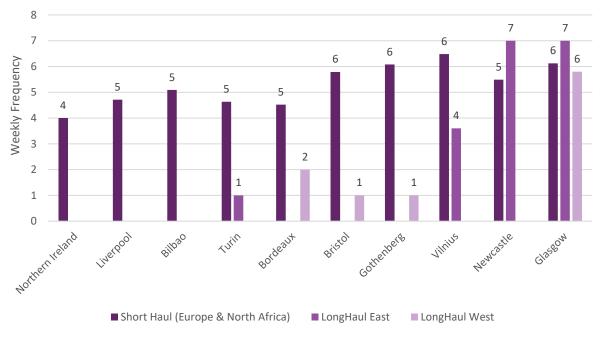


Figure 3.9: Average Weekly Flights per Destination by Region

Source: OAG.

Direct and Indirect Access to GaWC Alpha and Beta Cities

3.15 Figure 3.10 below shows the number of Alpha and Beta World Cities that are reachable from each of the regions by either direct or indirect connectivity. Northern Ireland is in the middle of this grouping, showing that the current hubs being served are providing good connecting opportunities but there is room for improvement in terms of direct services and increased frequencies on existing routes.





Source: York Aviation analysis of GaWC and OAG.

Conclusions

- 3.16 In relation to traffic flows it is clear that Northern Ireland has a good demand for air travel. This is in part due to the geographical location, being separated by water from the rest of the United Kingdom, making air travel the most efficient means of travelling.
- 3.17 The Irish Sea separation from GB means that Northern Ireland is very well connected in terms of the number of different domestic destinations and frequencies, and compares well against a group of similar sized cities and sub regions.
- 3.18 In relation to international traffic, Northern Ireland is lacking the frequency of flights to major hubs such as Amsterdam and Frankfurt and this is a limiting factor for its airports. When compared to other similar sized cities and sub regions, NI compares poorly, with the fewest direct international services, coupled with low frequency.
- 3.19 We assess that Dublin Airport, with its large international network, is a key reason for the relatively thin international network from NI's airports. The need for multiple daily flights to major hub and business centres would make Northern Ireland airports more attractive options and remove the need for many people to travel via Dublin.

3.20 With indirect connectivity the range of destinations (in terms of world cities) that can be reached via a 1-stop connection are good, but there is room for improvement here with additional frequencies and new non-stop flights to currently unserved airports and global hubs.

4. NI Connectivity Needs

Introduction

- 4.1 This section explains why connectivity matters to NI. It explores the importance of connectivity to the delivery of the DfE's economic vision, and then more specifically, its importance in driving the economy, in terms of delivering additional foreign direct investment, external trade, and also the tourism economy.
- 4.2 The chapter also highlights the importance of different markets in both the business and leisure sectors, and the role that Dublin plays as a port of entry onto the island of Ireland.
- 4.3 The chapter concludes with what we assess to be the key priorities for improving NI's connectivity to other markets.

Why Does Air Connectivity Matter?

- 4.4 The ways in which air connectivity impacts on economic performance are multifaceted, and are summarised below:
 - foreign direct investment (FDI);
 - → trade;
 - Habour market effects;
 - agglomeration; and
 - → tourism.
- 4.5 At the outset, it is important to note that the UK including NI is a highly global economy, and as such, air connectivity is more important to NI than is the case in many other countries of the world. Air connectivity must also be considered as a dynamic element in underpinning growth, i.e. the level of connectivity available to businesses in a region has to keep pace with that available to competitor regions. This is important in the context of the need for NI to be able to grow its connectivity, to ensure that it maintains, and indeed grows, its competitive position and continues to be attractive to businesses, investors and tourists alike.

Foreign Direct Investment

- 4.6 Research has established the existence of a linkage between air transport and the attraction or retention of inward FDI. A sample of this evidence base is set out in the Appendix. Whether the investment is inward or outward, strong connectivity is needed between the head office and the branch locations to ensure that operations are efficiently managed.
- 4.7 Hence, in considering NI, the availability of a strong and growing network of air connections is an important factor in both attracting further inward investment and enabling local firms to exploit investment opportunities overseas.

Trade

- 4.8 The importance of air travel and air connectivity in increasing levels of trade is again well established. As with the FDI above, the evidence base in the literature that supports this is set out in the Appendix. In relation to trade in goods, air cargo is a quick and efficient means of transporting goods around the world, which makes economic sense in relation to the transport of some goods, primarily those that are high-value, low weight or time critical.
- 4.9 Passenger connectivity is also important in terms of trade. In relation to the trade in goods, companies need staff to travel to meet potential customers, to secure deals and to provide after sales care. This relates to both exports and imports. Trade in services is also heavily reliant on air passenger connectivity. Air connectivity is exceptionally effective at reducing the perceived distance between markets.
- 4.10 Hence, air connectivity is important in facilitating trade in both goods and services. Whilst this is bidirectional, encouraging imports as well as exports, ultimately enabling bi-directional international trade facilitates economic growth through enabling countries to develop comparative advantage. As a consequence, better connected regions will be further up the productivity curve and better able to avail of trading opportunities than other regions that are less well connected. Enabling NI to keep pace with connectivity developments throughout the rest of the UK and Europe, by supporting future air route development, is important to ensure that companies in NI can trade effectively in future and remain competitive.

Labour Market Effects

- 4.11 An area that is increasingly being identified as one of the channels of impact through which air connectivity operates is its effect on the labour market through its ability to influence individuals' decisions around where and how much labour to supply. This effect can, in broad terms, be divided in to two parts:
 - air connectivity is important for NI in being able to attract talented individuals to live and work in NI on a permanent basis as air connectivity is needed to support the quality of life of this group. As the UK moves outside of the EU, with a greater emphasis on attracting highly skilled individuals from across the globe, the requirement for global connectivity will need to adapt, placing a greater emphasis on NI's ability to support new air connections.
 - air connectivity is also essential in supporting the lifestyle choice of an increasing number of high value added individuals who use air services to commute for short periods or even weekly while living overseas. These individuals often provide specialist or high value services, helping to provide competitive advantage to a region.
- 4.12 These factors are important in ensuring that NI is able to attract and retain the skilled workers required to support broader economic development initiatives such as the DfE's economic vision.

Agglomeration

4.13 Agglomeration effects are productivity benefits that can be achieved by firms located close to each other, perhaps through knowledge spillovers between firms, improved access to suppliers or to larger labour markets. They relate to the concentration of economic activity in an area. In other words, the more firms located within an area, the greater the likely agglomeration effects. In the context of air connectivity, there are two potential agglomeration impacts:

- As a direct impact from the way in which air services can increase effective density across large areas by reducing travel times and increasing the ease with which agglomeration effects may occur across national borders. This is essentially the boost in productivity within firms as air services make the world smaller, facilitating innovation and cooperation and widening markets for both goods and labour; and
- as an indirect impact relating to the potential impact of air services in terms of influencing FDI decisions, which in turn result in clustering of firms in locations around major airports, again resulting in an increase in effective density and greater agglomeration.

Tourism

- 4.14 Direct air services make NI easier and faster to get to for potential visitors travelling either for business or leisure purposes. Hence, the availability of air services influences the decisions that visitors make. The importance of air services for attracting inbound tourism holds true at a regional and sub-regional level because if a region is not easy to reach directly, visitors from overseas are far less likely to visit. If a city or sub-region or region is not easily accessible, by air or by another mode, then it is less likely to be considered in the first instance.
- 4.15 The ability to travel and experience other countries and other cultures is an extremely important part of life for many people, while for others the ability to visit friends and relatives in other parts of the world is vitally important. In this context, access to air travel is a key component in making cities and regions 'liveable' places for people. Hence, access to an airport with a good range of services is an increasingly important factor in attracting people to live and work in an area, particularly in the context of what is an increasingly global workforce. Ultimately, an improvement to quality of life, in line with the DfE's economic vision, will support the Strategy through population growth and additional economic activity in an area, providing prosperity and creating the conditions that are needed for economic growth.

Northern Ireland Government Policy Framework

- 4.16 The Department for the Economy Economic Strategy in October 2023, when this research was commissioned, set out an ambition for a '10x Economy' (10x), with a decade of innovation that would deliver a 'ten times better economy' with benefits for the whole nation. It should be noted that this report was prepared primarily in late 2023, before the return of the Northern Ireland Government in early February 2024. The return of the Government has brought with it a new Minister at the DfE with a revised vision for economic development in NI. We understand that while the detail of economic policy may change, the broad direction will not. NI will remain an outward facing economy, with a need for increasing international links to grow prosperity.
- 4.17 NI's connectivity needs will be a key enabler in supporting the delivery of this vision and improving appropriate connectivity for both business and tourism sectors.
- 4.18 Being an island together with the Republic of Ireland to the south air travel plays a major role in providing fast connectivity to other nations.



- 4.19 The development of air connectivity as an enabler to achieve the goals of the Department's strategy clearly needs to sit within any Government policy framework, and notably any policies relating to aviation development. However, as it currently stands, there is no policy that specifically covers the development of aviation connectivity or indeed sets out any vision or strategy for the development of Northern Ireland's airports. That said, whilst the development of further air connectivity does not receive any specific mention or focus in the strategy papers, the associated research programme does indeed highlight the need to further explore the role of air connectivity.
- 4.20 Later in this chapter we will explain why this is of particular importance when it comes to any support that the Government or other private bodies may wish to provide, to support the development of new air services.

Emerging Tourism Strategy for Northern Ireland

- 4.21 The Tourism Strategy: 10 Year Plan has established a vision and mission for the growth of the tourism sector in Northern Ireland over the next decade. It aims to be a key enabler of the Department's Economic Vision to help position the region internationally as an attractive place to visit, making its visitors feel welcome whilst at the same time helping to make the lives better for all NI citizens. It will seek to deliver on the objectives of the DfE's economic vision by generating economic growth that is 'sustainable, inclusive and innovative':
 - The Vision: To establish Northern Ireland as a year round, world class destination which is renowned for its authentic experiences, landscape, heritage and culture and which benefits communities, the economy and the environment, with sustainability at its core.
 - The Mission: To support the tourism sector in building an innovative, sustainable and inclusive tourism industry for all people and places in Northern Ireland which enriches its people, its economy and its guests.
 - The Strategic Aim: To increase the value of tourism to the Northern Ireland economy by 50-75% compared to 2019.
- 4.22 Whilst not excluding other areas, the Strategy aims to focus marketing activity on the four key markets of NI Domestic, GB, RoI and North America, but reiterates that other significant sources of tourists, such as Germany and France, whilst not focus areas, would not be ignored.
- 4.23 The Strategy recognises the heavy reliance on aviation as a means of providing access to NI from overseas countries. It acknowledges that whilst the vast majority of passengers from GB enter directly into NI, around two thirds of other international passengers arrive onto the island of Ireland through other means, notably Dublin Airport.
- 4.24 However, despite recognising the importance of aviation, the Strategy does not cover the need to develop international air services as a means of boosting inbound tourism, but instead highlights the need to manage aviation in the context of tourism becoming more sustainable one of its five underlying strategic themes. Ultimately, it is looking to balance the advantages of increased connectivity with associated financial and carbon costs.

Connectivity to Support FDI, Trade and Tourism Development

- 4.25 As part of our assessment of connectivity 'needs' for NI that would support the development of both tourism and business in NI, and in turn support the DfE's aspirations, we consulted with several stakeholders, with each of them providing their assessment of the current 'state of the nation', their views on where the largest air service gaps and opportunities lay, and, in addition, their assessment of what would be required to deliver these services.
- 4.26 These stakeholders included:
 - NI Airports;
 - → airlines operating from NI;
 - tourism Agencies;
 - NI Inward Investment Agency;
 - Chamber of Commerce; and
 - → NI DfE.
- 4.27 The outcomes of these discussions have been used below alongside a range of economic statistics to consider current and future Northern Ireland connectivity needs and the extent to which these are met currently and how these might be influenced by the Northern Ireland Government's policy framework.

Current Foreign Direct Investment & Trade Linkages

Foreign Direct Investment

4.28 Foreign Direct investment (FDI) into NI forms a significant part of growing the economy, creating high quality jobs, driving innovation and ultimately creating additional wealth for NI. In the seven years 2016-2022, around £7.4 billion of capital was invested in NI by foreign companies, covering 199 different companies, over 261 projects and creating over 15,000 new jobs. Figure 4.1 below shows the source countries with the largest number of investing companies over this time period.

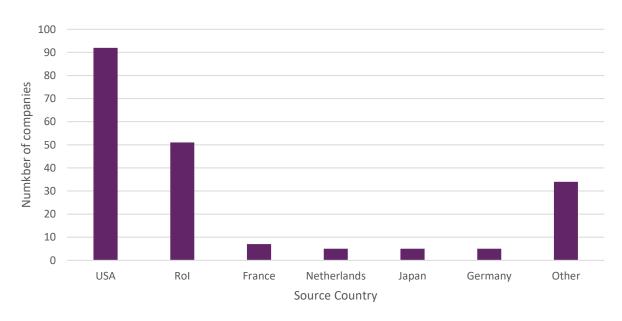


Figure 4.1: FDI into NI between 2016 and 2022 – number of companies by source country



Source: Department for the Economy – NI.

- 4.29 The majority of foreign companies originated from the USA (48%) or the Republic of Ireland (24%), with the remaining 28% spread across the rest of the world. France, Netherlands, Japan and Germany were the only other countries where at least five companies from their territories invested in NI during this period.
- 4.30 The majority of investment is in and around Belfast (County Antrim), as shown in Figure 4.2 below, which attracted 74% of all projects during this period.

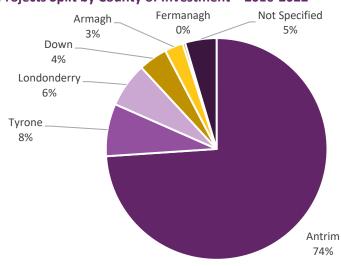


Figure 4.2: FDI Projects Split by County of Investment – 2016-2022

Source: Department for the Economy - NI.

4.31 The Departments economic vision factors in greater certainty on NI trading conditions, which creates opportunities to boost trade on a north-south and an east-west basis, as well as internationally. It builds upon the priority clusters identified by 10x and which form a significant proportion of the industries that have been attracted to NI in the form of FDI since 2016. Whilst the exact definitions of each industrial sector in Figure 4.3 below do not precisely align with the five clusters identified, around 64% of all companies investing in NI over this period appear to fall into one of the five focus industrial clusters.

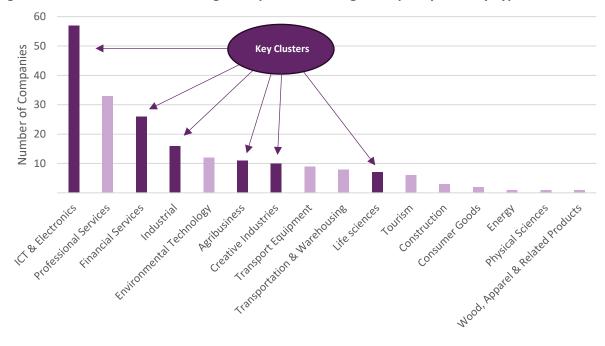


Figure 4.3: NI FDI 2016-2022 – Foreign Companies investing in NI split by Industry Type

Source: Department for the Economy – NI.

- 4.32 The metric used for the charts above have used the number of overseas projects or companies that have invested into NI since 2016. Other metrics could have been used, such as the amount of capital invested, or the number of jobs created. Each of them would give slightly different percentages of share for each industrial sector, country of origin, or county invested in, but the general picture would remain broadly similar.
- 4.33 In total, the cumulative FDI investment position into NI totalled £10.4 billion by the end of 2019⁷, equating to about 21% of NI GDP in 2019, based on NISRA's 2019 estimate of NI GDP as £50.0 billion. This demonstrates the importance of FDI to NI.
- 4.34 The EY report into the UK's 'Attractiveness' regarding FDI⁸ indicates that the UK is performing reasonably well compared to peer European benchmark countries, specifically Germany and France. Clearly London dominates as the primary recipient in the UK. Outside of the capital, Scotland is the highest receiver of FDI, having received the highest cumulative number of projects since 2014 compared to any other UK region (after London).
- 4.35 In 2022, for example, London received 299 new FDI projects, whilst Scotland received 126 projects. NI received the lowest number of projects of any UK region in 2022, receiving just 26, and has regularly been towards the bottom in terms of UK regions attracting FDI.
- 4.36 Whilst NI should not be compared to London, the difference between NI and Scotland is perhaps more meaningful. NI has about 35% of the population of Scotland, and historically about 30% of the GDP of Scotland (source ONS), but the number of projects received compared to Scotland is significantly lower, at just 21% in 2022. Scotland, for the last decade or so, is attracting significantly more than its proportional 'fair share' would suggest, compared to NI and indeed other regions outside of London.

⁷ Source: UK Office for National Statistics.

⁸ Source: "Navigating through turbulence – EY UK Attractiveness Survey" June 2023.

Trade

4.37 In 2022, total sales by businesses in Northern Ireland (NI) were estimated to be worth £85.2 billion, equating to an increase of £6.5 billion over the sales recorded in 2021⁹. The amounts and proportion of sales split by destination are shown in Figure 4.4 below.

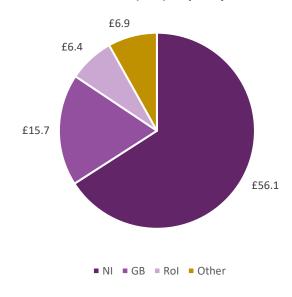


Figure 4.4: NI Local Business' Trade Sales 2022 (£bn) – Split by Destination

Source: NISRA.

- 4.38 £56.1 billion of sales in 2022, equating to 66% of all sales, were internal to NI. Of the remaining sales, £15.7 billion (18%) was to GB, £6.4 billion (8%) to the Roi, £2.7 billion (3%) to other parts of the EU, and £4.2 billion (5%) to other parts of the globe.
- 4.39 More granular sales data by destination country, available for 2021, is shown in Figure 4.5 below.
 Total 'external' trade sales, i.e. goods and services leaving NI, totalled £24.9 billion, equating to 32% of total NI sales of £77.1 billion.

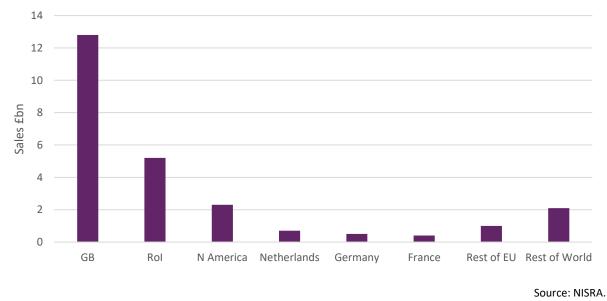


Figure 4.5: NI Local Business' Trade Sales 2021 (£bn)

⁹ Source: NISRA



- 4.40 Of the external sales, services and goods destined for GB and RoI accounted for 72% of the value of external sales. After this, the four most significant destinations for services and goods were North America, Netherlands, Germany and France.
- 4.41 External trade is therefore a very important part of NI's economy.

Discussions with Business-related Stakeholders

- 4.42 The DfE's economic vision for NI aims to grow its economic wealth, and one of the most important drivers, if not the most important driver, is for the nation to grow its external trade.
- 4.43 The FDI and Sales data clearly show where the largest markets are for trade, namely GB, the RoI, Germany, France, Netherlands and the USA. Our discussions with Invest NI and the NI Chamber of Commerce support this, where they have indicated that these, together with an unmet demand to Scandinavia, are the priority destinations that require better direct connectivity.
- 4.44 Our discussions with Invest NI and the NI Chamber of Commerce indicate that from a business perspective, businesses based in Northern Ireland benefit more from direct connectivity with its main markets. However, apart from regular services between NI and GB, which is well served and has already recovered to its pre-COVID frequency of services to most major GB destinations, the same cannot be said of services to its other markets where air connectivity is poor. This mirrors our findings in Sections 2 and 3.
- 4.45 **Table 4.1** shows how air services to key markets stood for a peak week in September 2023, and how it compares to a peak week in September 2019.

Destination	Weekly Frequencies from NI – 2023	Weekly Frequencies from NI - 2019	Variance	Comment
GB	657	629	+28	Most major GB destinations well served, offering day return options
France	9	11	-2	9 departures per week to Paris. Irregular timings. No day return option.
Netherlands	11	17	-6	Flights to Amsterdam from both BFS and BHD, operated by easyJet and KLM respectively. No day return option.
Germany	4	2	+2	No day return option. Single service on days 1,3,5 and 7 only.
USA	0	0	0	No direct services to anywhere in North America
				Source: OAG Schedules.

Table 4.1: NI Air Connectivity to Major Trading Markets

Source: OAG Schedules.



- 4.46 A customer travelling on business to another short haul destination in GB or elsewhere in Northern and Western Europe will often expect to travel out and back in a day, which therefore requires an airline to be serving a destination from NI at least twice per weekday (one in the morning and one in the evening) and ideally at least three times per weekday. The low frequency of services direct from NI to the Netherlands, France and Germany do not meet the needs of the business customer. The needs of the business customer seeking to fly direct from NI to North America are not met at all.
- 4.47 Feedback received from various stakeholders also identified Scandinavia as another regional market that is currently unserved from NI, with most journeys to Scandinavia currently either flying via London or direct from Dublin.
- 4.48 Generally, the consensus from the business community was that direct services to GB were well served from Belfast, and that flights from Belfast to Heathrow and the Public Service Obligation (PSO) flight from CoDA to Heathrow provides good connectivity to British Airways' global network. However, there seems to be an acceptance that other parts of Europe require an indirect flight over London, or a drive south to Dublin to catch a direct flight to several European or North American points that cannot be directly reached from Belfast. This is seen as suboptimal amongst the business community, both for FDI and for trade-related journeys, and that direct services to key points in Europe, and ideally to the East Coast of the USA, would greatly improve efficiency, and stimulate further inwards investment and trade.
- 4.49 Based on the feedback received thus far, the destinations that appear to feature as the top priorities for route development are as follows:
 - a direct, minimum 5 per week, year round service from Belfast to an East Coast hub in North America – the most likely routing would be to New York, operated by an airline that has access
 – (either within the airline or through a codeshare) to a large route network beyond New York, such as United Airlines (Newark Airport) or American Airlines (JFK Airport).
 - greater frequency to key European cities including (but not exhaustive) provision of at least twice daily service to Paris, Frankfurt and Copenhagen, providing a day return service for business customers.

Tourism Linkages

- 4.50 We have engaged with senior management at Tourism Ireland, Tourism Northern Ireland and the Northern Ireland Tourism Alliance (NITA) regarding tourism flows and key markets.
- 4.51 Tourism is one of NI's most important economic sectors, contributing annual tourism expenditure in excess of £1 billion in 2019 and directly supporting approximately 71,000 jobs across the region¹⁰.
- 4.52 The DfE assesses that there is significant potential for further expansion and that opportunities exist to build on NI's strengths and grow the sector in line with the Department's economic vision by enabling the innovative, inclusive and sustainable development of this sector. The strategic aim is to increase the value of tourism to the NI economy in 2030 by 50%-75%, which equates to an annual growth rate of between 4% and 6%.
- 4.53 The primary inbound (i.e. non-domestic) tourism markets for NI align very closely with key business markets, for both FDI and also external trade. They are shown below in Table 4.2.

¹⁰ Northern Ireland Annual Tourism Statistics.

Origin	Number of Visitors (000)	Proportion of Total	Proportion of Total (exc. Rol)	% Entering from Ro
GB	1,461	49%	65%	7%
Rol	756	25%	-	100%
USA	212	7%	9%	77%
Canada	68	2%	3%	74%
Germany	65	2%	3%	77%
France	55	2%	2%	64%
Rest of World	384	12%	18%	49%
Total	3,001	100%	100%	26%

Table 4.2: NI Inbound Tourism – Primary Markets (2019)

Source: Tourism Ireland.

- 4.54 Visitors from GB make up nearly half of all inbound tourists, at 49% of the total. Visitors from RoI make up one quarter, with the USA (7%), Canada (2%), Germany (2%) and France (2%) the next largest origin countries.
- 4.55 When removing 'land access' tourists from RoI and just focussing those who have had to cross water to reach NI, GB provides nearly two thirds of all inbound visitors to NI. Visitors from North America make up a significant portion of the remainder (USA 9% and Canada 3%), with Germany (3%) and France (2%) being two of the largest remaining origin countries.
- 4.56 Of the 18% coming in from the rest of the world, tourists from Australia and New Zealand feature quite high. About half of this cohort of tourists use Dublin as the main port of entry to the Island of Ireland, with flights to Belfast via Heathrow being the next largest routing.
- 4.57 The inbound tourism industry, with Rol the notable exception, relies heavily on air connectivity. An assessment of air schedules into NI from the above points provides a mixed picture:
 - GB in a sample week's schedule from September 2023, there were flight links to 23 different airports in GB, the Channel Islands and Isle of Man. Flight frequency (657 departures) is already back up to pre-COVID levels (629 in 2019), with 95% of the services operated from Belfast's airports, and just 5% from CoDA (4 different destinations).
 - Germany and France in the sample week's schedule from September 2023, only Paris and Frankfurt are served from Belfast's airports, and with very low frequency – Paris at 9 per week and Frankfurt at just 4 per week. No other cities in either country have a direct flight into Northern Ireland.
 - > North America There are currently no direct flights to North America from NI.
- 4.58 In summary, GB is well connected to NI, but all other key tourism markets are poorly served, or indeed not served at all. For these non-GB leisure visitors, most of them are arriving into RoI primarily Dublin Airport with the majority of tourists coming from the USA (77%), Germany (77%), Canada (74%) and France (64%) taking this routing.

4.59 This is driven simply by the greater availability of destinations that are directly served from Dublin to these countries, as Table 4.3 below highlights for a sample week in September 2023.

Table 4.3: NI Airports vs Dublin Airport – Number of Different Towns/Cities Served Directly – sample week in September 2023

Destination Country	Belfast	Dublin
GB	19	20
France	1	17
Germany	1	9
USA/Canada	0	18
		Source: OAG Schedules.

- 4.60 The emerging Tourism Strategy for NI, as mentioned in paragraph 4.21, will focus primarily on the four largest markets by volume, namely domestic NI visits and inbound tourists from GB, RoI and North America USA.
- 4.61 Clearly two of these domestic NI and RoI do not need air services. For the GB market, the vast majority of visitors from GB travel directly to NI, supported by an extensive direct air network to many points in GB, and indeed regular direct ferry services between Belfast and Cairnryan (Scotland) and Liverpool. However, for the fourth of these focus markets, there are no direct air services from NI to North America, with most passengers flying into Dublin and travelling north by car/bus/taxi etc, or by flying from Belfast/CoDA and connecting onto Transatlantic routes via Heathrow.
- 4.62 The emerging Tourism Strategy states that whilst it is applying more focus on its four highest volume markets, it is also mindful to include other significant inbound markets as well, naming Germany and France as two of these. However, as Table 4.3 above shows, France and Germany are not at all well served with direct air routes from NI, and as with North American inbound visitors, Dublin is the largest port of entry.
- 4.63 However, whilst highlighting the importance of air travel as a provider of inbound visitors, the Tourism Strategy does not articulate the need to grow the number of direct air routes to NI. It references the large role that Dublin plays as the port of entry to the island of Ireland, but it appears not to view this as a problem, or a hindrance to growing tourism in NI.
- 4.64 This view was largely supported by Tourism industry stakeholders, who did not perceive the NI-bound tourists arriving into Dublin as being a major problem. Instead, they recognise that many international tourists tend to do a 'pan-Ireland' tour, taking in several parts of both NI and RoI, and therefore the airport merely determines the start and end point of a loop around the island.
- 4.65 However, we assess that there is a greater likelihood of visitors spending more time in their arrival/departure city, such as the night after the flight arrival or the night preceding the flight departure, in addition to any other nights they may spend in the city, thus helping to boost overall tourism income.

Dublin Airport

- 4.66 The range of air services from Belfast to key markets for both the business and leisure sectors range widely, from GB being extremely well connected, through to Germany and France being very poorly connected, and North America with no air services at all from NI.
- 4.67 As the tourism and business flows into NI show, significant volumes of NI-bound air passengers continue to use Dublin as the point of entry onto the island of Ireland.



- 4.68 Based on a typical week in September 2023, Dublin Airport provided direct services to a wide range of destinations, notably in Europe (17 different destinations to France and 9 to Germany) and North America (18 different destinations), compared to NI's current offering of just Paris and Frankfurt – and at a very low frequency.
- 4.69 Whilst there are very few direct services from NI to key focus countries, passengers wishing to travel to unserved, or indeed underserved destinations in Europe are able to travel by road down to Dublin around 1.5 hours' drive from Belfast (or even less time from border towns such as Newry) to fly directly to points notably in Europe and North America, or they can fly to London Heathrow and connect onwards to the end destination from there.
- 4.70 Dublin Airport is clearly a larger airport than any airport in NI, handling nearly 28 million passengers in 2022 (and peaking at 32 million in 2019, compared to Belfast International and Belfast City's 2019 volumes of 6.3 million and 2.5 million respectively). Facilities at Dublin are greater, such as a broader range of retail outlets, and of particular importance is the US Preclearance facility.
- 4.71 Feedback from both the business and tourism stakeholders indicates that passengers still value the benefits of Preclearance in Dublin when travelling to the US, enabling a faster entry into the US at the first point of landing, or having the ability to connect onto other domestic services faster. Any Transatlantic route development at Belfast would be faced with this perceived competitive advantage, along with greater frequency and destination choice at Dublin.
- 4.72 That said, despite some significant product advantages at Dublin Airport, business stakeholders advised that the presence of a non-stop service from the US into Belfast would still be much more desirable than having to drive down to Dublin.
- 4.73 There are, however, some additional downsides to NI's reliance on Dublin Airport as a major gateway, which could be limiting the potential for the number of visitors to NI:
 - Dublin is a very expensive place to stay, with overnight accommodation averaging amongst the highest in Europe. In part, this has been exacerbated by the recent introduction of planning permission consent requirements for short term lets, reducing the supply of bed stock such as Airbnb further still, and thus increasing average prices. For an inbound visitor potentially considering a break in NI, or incorporating NI into a pan-Ireland visit, the initial high cost of staying in Dublin for a short period could, in theory, reduce the likelihood of a visitor making the booking;
 - visitors coming to Ireland to conduct a 'Pan-Ireland' visit may base themselves in Dublin, and only visit Belfast and other major NI attractions in the form of day trips, thus causing NI to lose out of additional revenues from hotels, restaurants, taxis etc;
 - As part of its transformation of the border and immigration system, the UK is introducing a new Electronic Travel Authorisation (ETA) scheme, requiring all visitors to the UK (excluding British and Irish citizens) to apply for permission to enter. The scheme is planned to be fully in place by the end of 2024. The scheme has the potential to act as a deterrent in whether international visitors would include NI as part of an all-island trip and so reduce the number of visitors to NI via Dublin, or for those visitors based in Dublin taking late notice, ad-hoc short trips to NI if they not have completed their ETA application. Perhaps even more concerning is if an overseas visitor who lands in Dublin (innocently) travels to NI without an ETA they could potentially face a large fine.



4.74 As paragraph 4.65 indicates, a direct air service to NI would therefore likely boost the number of nights a visitor has in NI, removing the ETA concerns highlighted above, and provide the catalyst for growth in both inbound tourists and FDI.

Conclusion

- 4.75 NI is a relatively small region with a population of around 1.9 million. Apart from a land border with Rol to the south, NI is surrounded by water, meaning that air connectivity is critical for inbound tourism, FDI and trade.
- 4.76 Air links from NI to GB are plentiful we see little scope to grow air connectivity to the rest of the UK, apart from some capacity growth on existing services as GDP grows.
- 4.77 The largest markets for FDI and Trade include North America, Germany and France. The business community have also identified Scandinavia (through Copenhagen) as a target market. However, North America has no direct connectivity to NI, and France and Germany's links are minimal, serving just Paris and Frankfurt with very few weekly flights.
- 4.78 Stakeholder feedback from the business community states that more direct services to North America (in particular New York), France, Germany and Scandinavia (in particular Copenhagen) are critical to stimulating additional demand as these are the countries with some of the highest trading links with NI, and sources of inbound tourism, and importantly where stakeholders assess there to be the greatest opportunity for further growth.
- 4.79 Similarly, the emerging Tourism Strategy recognises the importance of air connectivity, but is mindful of the need for sustainable growth and does not directly state that connectivity needs to grow to support the growth of Tourism in NI. The Tourism Strategy seeks to focus on markets including North America a priority market and to a lesser extent other large inbound tourism markets such as France and Germany.
- 4.80 Unlike the feedback from the business stakeholders, feedback from the leisure stakeholders appeared more accepting of the fact that many tourists in particular in the focus countries in para 4.77 above enter the island of Ireland through Dublin, and not directly into NI.
- 4.81 There are, however, several downsides to NI-bound tourists entering the island of Ireland through Dublin, which not only may limit the number of visitors choosing to travel to NI, but is likely to reduce their expenditure when visiting.
- 4.82 We assess that tourist numbers would not only be stimulated with the presence of more direct services into NI and that the number of bed nights could increase with customers staying the night before an outbound flight and the night after an inbound flight, but also that tourists who embark on a 'round-Ireland' tour, taking in other parts of both NI and RoI, are more likely to spend additional days and nights in the city of arrival or departure something that Dublin will benefit largely from today.
- 4.83 For these 'round-Ireland' tourists, as long as a visit to Belfast is on their itinerary, then Belfast would benefit from additional visitor days and nights, along with associated food and entertainment expenditure, in the city.



- 4.84 Putting the business and leisure needs together, we conclude that any financial support that is available should be focussed on developing air routes to the key markets of North America (New York), France (additional Paris frequency), Germany (additional Frankfurt frequency, and developing services to other major cities such as Munich, Dusseldorf, Hamburg and Berlin), and a new service to Copenhagen, providing strong connectivity to the rest of Scandinavia.
- 4.85 Whilst not specifically stating it the DfE's economic vision for NI needs improved air connectivity to facilitate additional inbound tourism and growth in trade and FDI. The drivers for new air connectivity to countries such as the USA, Germany and France will be a blend of both business and leisure demand, with the mix of each varying dependent on the destination. However, the target regions for both the business and leisure sectors are broadly the same, and so we assess that there is no requirement for two separate connectivity strategies (i.e. one for business and one for leisure), but instead that there is one strategy that encompasses the needs of both market segments.



5. Evaluation of Policy Options & Levers

Introduction

- 5.1 The last section outlined the importance of air connectivity to NI and highlighted the key destinations that we assess to be of paramount importance to support growth in both the inbound tourism market and to support growth in FDI and trade. These are all vital facilitators for the delivery of the DfE's economic vision.
- 5.2 This section explores how the Northern Ireland Government might intervene in the market to support the development of these services and the air transport industry in Northern Ireland more generally. This includes consideration of both the structures that need to be in place for effective delivery and the potential mechanisms through which the Northern Ireland Government might intervene in specific cases.

Challenges Facing the Northern Ireland Government

- 5.3 Effectively supporting the air transport industry in Northern Ireland to enable its ability to deliver economic benefit is not a new activity for the Northern Ireland Government. It has a long history of intervention, dating back to the Northern Ireland Route Development Fund in the mid-2000s. However, success has been limited and there are clear challenges that face the Northern Ireland Government in seeking to intervene now:
 - Previous Airline Transatlantic Route Suspensions Previous support and interventions to stimulate growth in air services have met with limited success. The most notable recent failure was the suspension of United Airlines' service in 2017 from Belfast to New York, with the airline citing financial losses, but also at a time when a well publicised £9m support package to the airline from the NI Government was not approved by the EU. This legacy, together with the suspension of services a year later by Norwegian Airlines (also stated by the airline as being for financial reasons), is likely to make other airlines more wary of commencing Transatlantic services from Belfast. The reintroduction of such services is, therefore, likely to require significant additional support to attract an airline to launch such a route over and above the 'real' challenges of market size and competition from Dublin;
 - Potential Stakeholder Cynicism and Frustration As a result of the above, and other attempts to develop a strategy around improved connectivity for NI, there is a degree of existing cynicism from key stakeholders at airports, airlines, business and tourism agencies. Previous attempts to stimulate growth in connectivity appear to have lacked co-ordination, coherence and, ultimately, have not delivered. This means that future attempts may be viewed with caution. Any future attempts must therefore demonstrate improved co-ordination between the key agencies and Government departments themselves, ideally with a clearer, unified 'One Team' approach to developing air connectivity to and from NI. It must also be clear what the NI Government is seeking to achieve, what it can and cannot do and why, and the requirements on stakeholders to access support. Processes must also be streamlined and as simple as possible, such that the Northern Ireland Government can move quickly and react to opportunities within appropriate timescales.

- Subsidy Control Act (SCA) The SCA is new and to some degree is being tested as to what it can or cannot do. There does appear to be more flexibility in the Act regarding the level of support that may be justified with regards to airline financial support, including the ability to use economic returns as a justification for providing financial subsidies in support of the delivery of national policy goals. However, there remains uncertainty and it also opens up the Northern Ireland Government and NI airports and their partner airlines to greater risks of challenge. When the UK was part of the EU, the EU legislation was very prescriptive, and the European Commission provided an ultimate arbiter for its guidelines. This ultimately meant that any challenge to a scheme or intervention that was demonstrably within the Guidelines and/or which had been cleared by the Commission became a challenge to the Commission itself. This essentially provided a legal backstop for action. However, now the backstop is not there for the UK, any form of financial support provided to an airline may be more exposed to legal challenge from another airport, airline or Government, with greater ramifications for individual entities.
- Administrative Geography With increasing levels of coordination between Northern Ireland and Republic of Ireland in terms of the promotion of the island of Ireland, there are some challenges for Northern Ireland in terms of the administrative geographies in play. This is most obvious in terms of tourism promotion. Tourism Ireland is the body with responsibility for the promotion of the island of Ireland. It is, quite rightly, regionally agnostic and actively seeks to promote the whole of Ireland. However, given the importance of Dublin Airport as a competitor to the NI airports, this is not necessarily helpful from the perspective of the NI Government and its interests in relation to the development of air connectivity in Northern Ireland to its own tourism and business goals.

Summary of Required Developments in Air Connectivity

- 5.4 Whilst this list is non-exhaustive, the air route development priorities to support growth in both inbound tourism and business connectivity through improved access to NI have been identified as follows:
 - Direct Link to North America cities such as New York, Boston and Toronto have all been cited as having strong links with NI, but the most realistic – and probably most financially sustainable - opportunity would be for a direct flight to New York operated by a carrier that offers connectivity beyond the New York airport hub to many other points in North America. Airlines such as this would include American Airlines, Delta or United, serving their respective New York hub airports. For a service to provide an effective service that meets the needs of the business passenger, an airline would need to ideally offer a daily service from Monday to Friday, with at least one flight over the weekend. Whilst a Transatlantic service such as this is the most requested and highlighted long haul air service from both business and leisure communities alike, a key challenge, however, will be to attract an airline onto a route where previous operations have seemingly failed. United Airlines and Norwegian Airlines have both operated flights to the US East Coast from NI in the last decade, and subsequently suspended services in January 2017 and October 2018 respectively, both citing route financial performance as the reason for their cessation.

- Improved Links to France, Germany and other key European Countries as with a North \rightarrow American link, the development of more links to France and Germany would serve to improve both business and leisure connectivity with these countries. Currently the whole of NI is only served by 9 direct services per week to Paris and 4 direct services per week to Frankfurt. This provides minimal geographical coverage of the whole of these two key countries for both business and leisure, but also specifically from a business perspective, the lack of frequency of direct services does not provide a day return option. Currently, Paris is served from Belfast International Airport by Ryanair and easyJet, whilst Lufthansa serves Frankfurt from Belfast City Airport. CoDA does not have direct links to anywhere in Europe. A logical place to start would be to incentivise growth to their respective destinations by the incumbent carriers, before seeking to attract new, competitor airlines to these routes. Clearly there are other markets that would benefit from direct connectivity to NI. Whilst they are not primary target territories within the Department's economic vision, NI tourism and business would benefit from direct air links to countries such as Denmark (as an entry point to other Scandinavian countries), Italy, Spain and Portugal.
- Maintain Critical Links to London the city region of Belfast is well served with a wide range of services to five airports in the London system, with 190 weekly departures in a sample week in September 2023, including BA services to Heathrow providing connectivity to other cities in Europe and beyond. In the same sample week, Loganair provided 19 departures per week between CoDA and Heathrow, operated as a PSO route. The route provides vital connections to the national capital for residents of the western part of NI, as well as links to the rest of the world through Heathrow. Whilst the development of the route network from CoDA is desirable, the overriding priority is to ensure that connections with London are maintained beyond March 2024 when the current agreement expires.
- 5.5 While we are not suggesting that other opportunities that might come forward should not be considered on their individual merits, these markets should provide direction and focus for activity.

Prerequisites for NI Government Intervention

5.6 Before considering how the NI Government might choose to intervene in the market, there are a number of issues that, in our view, need to be addressed to enable effective and coherent action. These reflect our discussions with stakeholders and the DfE, and also our observations of the context in which the NI Government is operating, including the requirements of the SCA in terms of justifying interventions in the market.

A New Policy for Air Connectivity

5.7 At present, there is no clear and coherent NI Government policy in relation to the development of air connectivity. This means that activity is being undertaken in a vacuum and without a clear direction that would enable broader stakeholders to understand what the NI Government is seeking to achieve and engage with it effectively. It also means that, from an SCA perspective, there is no clear and unambiguous policy rationale for any intervention¹¹. This is fundamental to any monetary intervention satisfying the requirements of the SCA.

¹¹ Part B of the Subsidy Control Act states "Subsidies should be proportionate to their specific policy objective and limited to what is necessary to achieve it".

- 5.8 Such a policy should take its lead from the Department's economic vision and sit within the policy framework this policy establishes. As the DfE's economic vision currently reads, the role of air connectivity appears to be underplayed. Several reports covering both inbound tourism and FDI/Trade recognise the importance of connectivity, notably because NI has a small population and that air services form an important facilitator of tourism and trade today. The link between the development of air connectivity at NI airports, and the DfE's Economic and Tourism Strategies needs to be better articulated. An air connectivity policy should explain how it links into this broader policy framework and the Department's economic strategy following the arrival of the new Northern Ireland Government should reflect the importance of air connectivity.
- 5.9 This is one of the first things that needs to be addressed. Any financial support or incentives towards aviation development in NI are likely to need to be fully justified, demonstrating that it aligns with Government Policy. If there is, however, no policy, then such support is less likely to be approved and therefore may not materialise. In addition to supporting specific route development, a new Government Policy should provide clarity on the criteria needed for supporting the development of additional infrastructure at the airports, and planning applications for additional capacity, should it be required.
- 5.10 The policy should include a number of key features:
 - the Policy needs to unequivocally state that the development of air connectivity is required to enable delivery of the economic and tourism goals as required by the DfE's economic vision and set out the rationale for this position. Within this, it should make the overarching business case for intervention, such that any business case for an individual route can be limited to only essential information about individual routes;
 - it also needs to establish why intervention by the NI Government is required. In other words, it needs to set out the market failure or equity failure that the Government is seeking to address via intervention. This is again crucial to achieving compliance with the SCA¹². While it is for the NI Government to define its rationale for market intervention, in our view this is likely to revolve around the existence of asymmetric information issues as regards airlines' view of the NI market and the potential to secure wider economic benefits that will not be realised without Government intervention;
 - the details of the policy should be widely circulated around all stakeholders, to ensure that all key parties are made aware of its contents and are clear as to what can be done;
 - any support mechanisms and 'levers', be they monetary or non-monetary, should be clearly articulated to all stakeholders that may seek to avail of such support, and the circumstances when they could be used should be made clear;

¹² The UK Subsidy Control Act (2022), Schedule 1 Part A states that "Subsidies should pursue a specific policy objective in order to -:

a) remedy an identified market failure, or

b) address an equity rationale....

- the specific requirements of any business case that would need to be completed in order to justify the need for such support should be clearly articulated. Similarly, administrative and monitoring requirements should also be made clear. As above, at a specific route level, business cases should be as 'light touch' as possible. The overarching case for Government intervention should be within the policy set out and, at a route application level, should be little more than an exercise in ensuring the route supports the aims, objectives and criteria of the policy;
- the framework and timelines for decision making should be well publicised and are of critical importance. The decision makers must stick to these timelines.
- the level of available budgets should be established. As part of any communications to other stakeholders in the aviation ecosystem in NI, they should be provided with guidance of what levels of support may be available, and the criteria for eligible claims.
- 5.11 Clearly, there are potentially some difficulties around the development of such a policy given that responsibility for UK aviation policy remains with the Department for Transport. However, as this is fundamentally an economic development issue, then we do not believe that this should ultimately be a barrier.

Establishing Clear Lines of Responsibility within the NI Government

- 5.12 Currently, different facets of aviation fall under the responsibility of different Government departments. Airports and their associated physical developments fall largely under the remit of the Department for Infrastructure, while the business of aviation and the development of networks and connectivity are the responsibility of the Department for the Economy. This is a consistent cause for concern amongst airport and airline stakeholders as they believe it leads to a lack of coherence and inaction.
- 5.13 Ideally, a more coherent approach would be for the whole aviation industry sector in NI to sit entirely within one government department. It would enable a single departmental policy to be established, under the remit of just one Government department. Not only would this provide greater internal coherence and structure, acting as one central home for the whole of the aviation ecosystem in NI, but from an external perspective, it would become much clearer for stakeholders in the aviation industry for NI to recognise this, to understand the overarching governance of this industry in NI, and who to approach for support.
- 5.14 This responsibility would not control everything for NI aviation. As described above, authority for policy and regulation of aviation services in the UK remains with the Department for Transport and the Civil Aviation Authority (CAA), as its agent. However, for all other aspects regarding the 'business' of aviation in NI, we suggest that having everything under one departmental 'roof' would provide significantly clearer structure and coherence, leading to better guidance for the industry as a whole.
- 5.15 This is the case in Scotland. The responsibility of the development of an aviation strategy for Scotland lies with Transport Scotland, the national transport agency for Scotland, of which one of these aspects is international connectivity. Whilst the airports in Scotland are a mix of privately owned (Aberdeen, Edinburgh, and Glasgow International) and publicly owned (HIAL Airports including Inverness, Stornoway, Sumburgh, Kirkwall and several others, and Prestwick), the aviation strategy for Scotland is driven centrally by Transport Scotland, with any form of support much more likely if any aviation development falls into line with the aims and goal of this strategy.

5.16 If transferring responsibility to a single department is impossible or impractical, then the creation of a senior cross departmental lead for aviation policy would be a next best alternative. This person would have overall responsibility for delivery of the policy and would provide a pro-active figurehead for the NI Government's activities and a single point of contact for the industry with government. This would mean greater co-operation between the relevant Government departments, ensuring one voice, but with one department taking the lead.

Establishing 'Team NI Executive'

- 5.17 Alongside developing a clear policy for aviation development and improving coherence within the NI Government, there is a strong argument for establishing a 'Team NI Executive', which brings together the key public sector (as distinct to solely NI Government) stakeholders into a cohesive and active unit that can effectively deliver the aviation policy. As described above, this would function in a similar fashion to 'Team Scotland'. It should be emphasised that this is separate to actions to improve coherence in relation to aviation matters within the NI Government itself, as described above. Establishing Team NI Executive is about creating a multi-agency forum to support route development across NI, bringing together different organisations with an interest in connectivity development and the potential to assist.
- 5.18 Transport Scotland, Scottish Development International, Highlands and Islands Enterprise and VisitScotland work in close partnership to provide support to airlines, which can be instrumental to an airline deciding to start a new route. This approach benefits from working closely with Scotland's airports. This group of stakeholders has been working together since the early 2000s and has used a range of support mechanisms to help secure increased air connectivity for Scotland, in line with the goals of the Scottish Government. This included setting up one of the first route development funds in Europe. However, when this avenue was blocked by the European Union, the partnership has altered its approach.
- 5.19 Transport Scotland takes a 'national perspective' on all air route development propositions and works in equal partnership with airports, in a confidential manner, to share intelligence on route priorities; and enter into long-term relationship engagement/development with airlines to promote Scotland. The support offered to airlines is tailored to the route(s) in question and can take the form of attractive cooperative marketing packages and/or market intelligence and data to airlines on the potential of the Scottish market. Additional support can be offered for airlines that are considering the establishment of base operations in Scotland, in view of the direct economic benefits, including job creation, that come with such a development.
- 5.20 The partners have had a successful partnership with Scotland's airports in recent years helping secure many new routes and demonstrating that the support is having a positive impact. For example, Munich to Edinburgh (Eurowings), New York JFK to Glasgow (Delta) and Amsterdam to Inverness (KLM) are all routes that 'Team Scotland' has helped to support.
- 5.21 In some ways the Scottish example is no different to the marketing support offered by many public agencies around Europe. What perhaps distinguishes it is the clear drive from Government strategy, the formalisation of the partnership approach, the joint, evidence based decision making, and the proactive and visible involvement of the key agencies as primary players (as distinct from adjuncts to the individual Scottish airports). For instance, the partners have been active in their own right at the Routes conferences for many years and have their own strong relationships with airlines.

- 5.22 The relevant NI Government Departments¹³, InvestNI and Tourism Northern Ireland, as public agencies, could ultimately operate in a similar fashion to deliver the NI Government's aviation policy. There might also be potential benefit from including private sector representative organisations, such as the Northern Ireland Chamber of Commerce or the Northern Ireland Tourism Alliance, enabling access to data and contacts within members. These partners are already working together in relation to aviation development to some degree already, but this would need to formalise and increase the level of cooperation.
- 5.23 This group would, of course, potentially provide access to different funding sources that could be used to support aviation but just as importantly in some ways, it would provide a coordinated conduit to data and contacts that could support NI airports in their route development efforts. In the case of business travel, organisations such as the Chamber of Commerce and InvestNI could, for instance, provide (subject to them attaining approval to do so) the names of companies that currently fly their staff to various overseas cities (via other hubs or direct from Dublin), and possibly the volume of flights purchased each year. This helps to provide some level of reassurance to the airlines that there is a latent demand of high quality traffic that could potentially be served right from the outset. DfE could provide signposting and access to key Government statistics, such as numbers of exporting businesses by market or numbers of foreign owned companies or access to senior politicians or government officials. This all helps to demonstrate that the NI Government is united and serious about making the routes they are looking at work and that they are prepared and willing to help.

Potential Levers to Support Air Connectivity

5.24 Below, we have set out a number of options for the NI Government to work to support air connectivity growth. These are a mixture of monetary and non-monetary options.

Non-Monetary Levers of Support

- 5.25 Non-monetary levers are primarily about three things:
 - + access to data and intelligence that is not easily accessible from public sources;
 - access to contacts and individuals that help provide comfort around quality of demand for the route;
 - in-kind support, such as the provision of analysis and research that is supportive of the case for developing a route, or attendance at key industry events, such as Routes, to help make the case for Northern Ireland.
- 5.26 A Team NI Executive approach would be central to providing this type of support, as it would provide a single point for NI's airports to work with, and, collectively, the public sector agencies would have access to a large range of information and resource. This is very much about using the resources available in a more coordinated, effective and targeted way.

¹³ The departments that are relevant will ultimately depend on the extent to which NI Government is able to reorganise itself in relation to aviation matters. If aviation becomes the responsibility of a single department, then that department should be represented. If the responsibility remains split, then both DfE and the Department for Infrastructure should be represented, but with DfE leading given its responsibility as regards aviation connectivity.

Monetary Levers of Support

- 5.27 Airports are able to provide immediate financial support to airlines, regardless of whether they are new or not. These will mostly come in the form of discounted airport charges and marketing support. This is part of everyday business for airports in relation to airline relationship management and business development. What the NI Government is contemplating in this circumstance is supplementary to this day to day activity and is aimed at intervening in the market to assist in bringing forward routes that ultimately support its economic development goals.
- 5.28 Prior to the UK leaving the EU, such interventions were subject to state aid legislation, and, as we have set above, there were clearly defined guidelines on what was and was not possible within the context of state aid. It should, however, also be remembered that public agencies could also support air service development if they were deemed to be acting in a commercial manner. The so-called Market Economy Operator Principle (MEOP). Any intervention of this type sat outside state aid considerations. This essentially enabled the public sector to invest in air services on the basis of a credible commercial business case. This resulted in a number of public sector agencies entering into risk sharing arrangements with airlines to support route development. We are aware of such arrangements between the Welsh Government and Flybe, and the Government of Tenerife and a US airline.
- 5.29 Following the UK's exit from the EU, the SCA has become the standard against which possible interventions must be assessed. As described above, this appears to provide more latitude than the EU state aid guidelines, but it is yet to be really tested and the risk of challenge would appear to be higher. There seems little reason to believe that the MEOP principle would not still apply. Based on this position, we have set out below a number of possible options for intervention. It should be recognised that these are all potentially effective but in different circumstances. A function for 'Team NI Executive' would be to develop a framework of interventions and communicate with stakeholders those that are appropriate for different circumstances.
 - **→** Public Service Obligation (PSO) Routes - A PSO is an arrangement by which a governing body protects a minimum level of air services on a particular route that is socially and economically vital for the regions it serves. They are, in short, a method of subsidising routes of vital importance to social and economic wellbeing. PSOs are used in cases where there are potential obstacles, such as insufficient forecast revenue, that are preventing the route from being considered by airlines as commercially viable in a free market. Currently the CoDA-Heathrow service, flown by Loganair, is operated as a PSO route. The airline has confirmed that the route is not economically viable without the PSO support provided. For CoDA, the maintenance of this service is paramount. This is currently funded by the UK Government and the Department for the Economy, and is something that should be maintained for the foreseeable future. PSOs are potentially important in protecting domestic connectivity in the UK. They are not, in general, a method of bringing a new route that is close to commercial viability. It is highly unlikely that any additional route development from Belfast's Airports, or indeed CoDA, would satisfy the criteria for the receipt of PSO funding on routes to North America or Europe. We would also note that securing PSOs may be becoming more challenging, noting the recent reference of the Dundee to London PSO to the Competition and Markets Authority;

- Additional Marketing Support Most marketing support schemes tend to operate on a matching basis, where the airport, or other agency, will support an airline with marketing funds, in essence doubling the money invested into a campaign. However, this money has to be demonstrated that it is being used for marketing purposes, and not simply treating it as an additional income to improve the profitability of the route. This is the route by which Tourism Ireland currently seeks to support route development. Whilst additional marketing should of course stimulate traffic growth on a route, there is likely to be a finite limit of what is justifiable as meaningful marketing activity. Subject to the conditions stated in the Subsidy Control Act, some funding may be available through these means. The level of support may therefore be enough to support a new service to a European destination, but in our view, on its own, such support is unlikely to make the difference between loss and profit on a new long haul service in many cases;
- Tax Policy Air Passenger Duty This is not so much an intervention as a change in tax policy. The NI Government has already exempted direct long haul air services from APD, but this has not proved effective in stimulating growth. However, it cannot be denied that the lack of APD at Dublin Airport and the evidence from fares between Dublin and the NI airports does suggest that the incumbent APD charge on short haul services from NI is currently making Dublin more profitable for airlines. There is, therefore, an argument for removing APD from all services departing from NI. However, it should be recognised that this does have a number of issues from the perspective of the NI Government. While the action would likely increase traffic at NI airports and hence increase employment and GDP contributions from those airports, it would also likely result in commensurate reductions in the block grant from UK central government, which would potentially have impacts on other Government activities. More detailed work is required to understand whether the economic benefits would outweigh the lost tax revenue in this regard. Such a move would also be untargeted. There would no influence over what new routes might come forward;
- ≁ **Risk-Sharing** - This type of approach would build on the types of intervention seen previously under the MEOP principle. The fundamental principle would be that the NI Government would underwrite losses or a basic level of profitability on a new route in the early years of its operation. The exact mechanism, such as a loan, a repayable grant, or a draw down fund, could be decided on based on individual circumstances. The monies would then be repaid to the NI Government in the future once a predetermined level of profitability was reached on the route. Previously, under the MEOP, this type of arrangement would have required the NI Government to have had a reasonable prospect of a making a commercial return. The requirements of the SCA may mean that a commercial return is no longer required. The NI Government can justify its actions on the basis of a broader socio-economic return, in line with its policy objectives. Any intervention of this type would require a detailed business case to be developed and the basic principle within the MEOP of the NI Government having a reasonable prospect of ultimately getting its investment capital back should be adhered to. This would make the proposition harder to challenge. Given that the bounds of the SCA are still being tested, legal advice should be sought before considering this type of intervention further. However, an intervention of this type would likely be the only intervention of sufficient scale to influence decision making around long haul services;

Additional Indirect Support – There may also be opportunities for the NI Government to support NI's airports and new airlines through other policy programmes notably around training and skills. For instance, we understand that InvestNI can support inward investors with training and development needs as long as these do not include training to meet an organisation's statutory requirements. There are, therefore, potentially opportunities to support airlines with the recruitment and training of staff to operate new services in areas such as customer service, IT, or ground handling. This is not directly supporting the development of a new route but is potentially helping the airline to get established and operate efficiently and effectively more quickly.

Conclusions

- 5.30 The NI Government faces a number of key challenges to its being able to intervene effectively in the air transport market to support route development. There have been high profile failures in the past, there is a degree of frustration and cynicism amongst stakeholders, the SCA is relatively new and untested, and Northern Ireland's position within the island of Ireland's administrative geographies is complicated.
- 5.31 Before any intervention can be contemplated, there are structures and processes that need to be put in place. The development of an aviation policy for NI is essential to give direction and establish policy rationale, a clear structure of responsibility for aviation development within NI needs to be established, and Team NI Executive should be formed amongst the key public sector agencies to drive forward the policy, with the appropriate high-level resource.
- 5.32 There are a range of monetary and non-monetary levers that are open to the NI Government. Nonmonetary levers revolve around access to data and intelligence, access to contacts, and the provision of in-kind support.
- 5.33 In terms of monetary support, PSOs and marketing support continue to have a role to play in supporting route development but are ultimately relatively limited in their ability to achieve the full range of NI Government's potential goals. The development of a risk sharing mechanism, aided by the greater flexibility in the SCA, has the potential to be more effective, particularly in terms of the development of long haul services, where significant sums may be required to influence decisions.



6. Conclusions and Recommendations

NI Current Connectivity

- 6.1 Each of NI's three airports Belfast International, Belfast City and City of Derry Airport play a key role in Northern Ireland's connectivity.
 - Belfast International Airport the largest of the three offers direct connectivity to a number of domestic destinations in the UK, leisure oriented international short haul destinations, and a few key global cities, such as Paris, Amsterdam and Milan, which helps attract overseas visitors into Northern Ireland;
 - Belfast City Airport offers direct connections to key hub airports such as London Heathrow, Amsterdam Schiphol and Frankfurt International, where passengers can connect onto hub airlines' long haul networks. Belfast City Airport is also the best connected airport to other points in the UK and offers greater frequency, more suited to business passengers;
 - City of Derry Airport plays a vital role in the North West of Ireland by the provision of "lifeline" routes such as London Heathrow and Manchester, attracting both business passengers and inbound tourists to some extent. Its link to Heathrow provides Derry/Londonderry with both European and long haul connectivity.
- 6.2 The value of indirect connectivity is realised with the hub connections offering from Belfast City and CoDA, connecting to a wide range of important global cities via Heathrow, Amsterdam and Frankfurt.
- 6.3 Dublin Airport offers significant direct connectivity to the Island of Ireland. The airport offers direct services to 171 destinations, including other global hubs significantly more than NI's combined total, and well served with generally greater frequency compared to Northern Ireland Airports. Dublin Airport is also the main gateway for long haul travel across both Northern Ireland and the Republic of Ireland.
- 6.4 Long haul fares from Dublin Airport are significantly lower than the fares offered from Northern Ireland Airports, a difference of around £200 in the long haul westbound markets and a difference of around £300 in the long haul eastbound markets.
- 6.5 The wider range of destinations, coupled with on average lower fares, play an important role in driving international tourists through Dublin, with an estimated 75% of the international inbound visitors to Northern Ireland arriving through Dublin Airport.

Benchmarks and Connectivity Gaps

6.6 Northern Ireland has a good demand for air travel, in part due to the geographical location, being separated by water from the rest of the United Kingdom, making air travel often the only efficient means of travelling. Northern Ireland is very well connected in terms of both domestic destinations and frequencies. In relation to international traffic, Northern Ireland is lacking the frequency of flights to major hubs such as Amsterdam and Frankfurt and this is a limiting factor for its airports. Multiple daily flights to major hub and business centres would make Northern Ireland airports more attractive options and remove the need for many people to travel via Dublin.

6.7 With indirect connectivity via hub airports, the range of destinations (in terms of world cities) that can be reached via a 1-stop connection are good, but there is room for improvement here with additional frequencies and new non-stop flights to currently unserved airports and global hubs.

NI Connectivity Needs

- 6.8 Air links from NI to GB are plentiful we see little scope to grow air connectivity to the rest of the UK, apart from some capacity growth on existing services as GDP grows.
- 6.9 The largest markets for FDI and Trade include North America, Germany and France. The business community have also identified Scandinavia (through Copenhagen) as a target market. North America has no direct connectivity from NI, and France and Germany's links are minimal.
- 6.10 The emerging Tourism Strategy recognises the importance of air connectivity, but goes no further than this, and does not directly state that connectivity needs to grow to support the growth of Tourism in NI, seeking rather to balance the advantages of increased air connectivity with the associated financial and carbon costs. The Tourism Strategy seeks to focus on markets including North America a priority market and to a lesser extent other large inbound tourism markets such as France and Germany. Unlike the feedback from the business stakeholders, feedback from the leisure stakeholders appeared more accepting of the fact that many tourists reach NI via Dublin, and not directly into NI.
- 6.11 There are, however, several downsides to NI-bound tourists entering the island of Ireland through Dublin, which not only may limit the number of visitors choosing to travel to NI, but is likely to reduce their expenditure when visiting.
- 6.12 We assess that tourist numbers would not only be stimulated with the presence of more direct services into NI and that the number of bed nights could increase with customers staying the night before an outbound flight and the night after an inbound flight, but also that tourists who embark on a 'round-Ireland' tour, taking in other parts of both NI and RoI, are more likely to spend additional days and nights in the city of arrival or departure something that Dublin will benefit largely from today.
- 6.13 Putting the business and leisure needs together, we conclude that any financial support that is available should be focussed on developing air routes to the key markets of North America (New York), France (additional Paris frequency), Germany (additional Frankfurt frequency, and developing services to other major cities such as Munich, Dusseldorf, Hamburg and Berlin), and a new service to Copenhagen, providing strong connectivity to the rest of Scandinavia.
- 6.14 Whilst not specifically stating it the DfE's economic vision for NI needs improved air connectivity to facilitate additional inbound tourism and growth in trade and FDI. The drivers for new air connectivity to countries such as the USA, Germany and France will be a blend of both business and leisure demand, with the mix of each varying dependent on the destination. However, the target regions for both the business and leisure sectors are broadly the same, and so we assess that there is no requirement for two separate connectivity strategies (i.e. one for business and one for leisure), but instead that there is one strategy that encompasses the needs of both market segments.



Priority Markets

Building on the available evidence, there is a strong case for the NI Government to be seeking to support routes in the following main markets in particular:

- North America notably New York;
- France additional Paris frequency;
- Germany additional Frankfurt frequency, and developing services to other major cities such as Munich, Dusseldorf, Hamburg and Berlin; and
- a new service to Copenhagen, providing strong connectivity to the rest of Scandinavia.

It should be noted that this should not preclude support in relation to other opportunities that meet the NI Government's economic development goals. This list simply provides a focus for activity.

Policy Options and Levers

- 6.15 The NI Government faces a number of key challenges to its being able to intervene effectively in the air transport market to support route development. There have been high profile failures in the past, there is a degree of frustration and cynicism amongst stakeholders, the SCA is relatively new and untested, and Northern Ireland's position within the island of Ireland's administrative geographies is complicated.
- 6.16 Before any intervention can be contemplated, there are structures and processes that need to be put in place. The development of an aviation policy for NI is essential to give direction and establish policy rationale, a clear structure of responsibility for aviation development within NI needs to be established, and Team NI Executive should be formed amongst the key public sector agencies to drive forward the policy, with the appropriate high-level resource.
- 6.17 There are a range of monetary and non-monetary levers that are open to the NI Government. Nonmonetary levers revolve around access to data and intelligence, access to contacts, and the provision of in-kind support.
- 6.18 In terms of monetary support, PSOs and marketing support continue to have a role to play in supporting route development but are ultimately relatively limited in their ability to achieve the full range of NI Government's potential goals. The development of a risk sharing mechanism, aided by the greater flexibility in the SCA, has the potential to be more effective, particularly in terms of the development of long haul services, where significant sums may be required to influence decisions.

Key Actions

- Develop and publish an aviation development policy for NI;
- Rationalise lines for responsibility within Government for aviation in NI;
- Establish Team NI Executive to support route development;
- Publicise priorities and engage with airports and airlines;
- Identify budgets for intervention and communicate with industry;
- Explore risk sharing mechanisms in more detail.

7. Appendix A: Value of Connectivity Literature Review

Foreign Direct Investment

- 7.1 The existence of a linkage between air transport and the attraction or retention of inward FDI has long been postulated and there is a significant amount of evidence to support the existence of this effect. Essentially, research has established a logic chain around the need for travel between corporate head offices and branch locations. This travel facilitates effective management and operation of central administrative functions, allows the transfer of knowledge and technology, enables specialists within the organisation to operate across the full range of locations and allows the local or central delivery of training and development activities. Some examples of relevant research include:
 - Cushman & Wakefield European Cities Monitor this was an annually recurring survey between 1990 and 2011 of 500 European corporate decision makers which provided significant evidence of the importance of international connectivity in influencing company location decisions. It is still one of the most commonly cited pieces of survey evidence in this area. The survey consistently identified factors such as transport links with other cities and the ease of access to markets, clients and customers amongst the most important factors in company location decisions. There were clear linkages to the availability of air service connectivity as the cities served by Europe's major hub airports commonly featured towards the top of the list in terms of the best places to locate in Europe. In 2011, the last year the survey was published, London was ranked first, followed by Paris, Frankfurt and Amsterdam in order;
 - Oxford Economics The Economic Contribution of the Aviation Industry to the UK Economy research by Oxford Economics sought to assess the contribution of the air transport industry to the UK economy. It was found that a quarter of companies surveyed as part of the research reported that access to air services was important in determining where they locate their operations in the UK. Further research, also by Oxford Economics in 2006, attempted to quantify the link between air connectivity and business investment. The results of the study suggested a 10% increase in connectivity is associated with a 3.5% increase in the level of fixed investment in the long run;
 - Deloitte The Heathrow Phenomenon this research focussed on the economic impact of Heathrow Airport on the economy of London, with a particular focus on West London and the M4 Corridor. Research by Think London is citied, which identified around 50% of foreign owned companies located to London due to its status as an entry point to the UK and to Europe. The report concluded that connectivity offered by Heathrow is critical to this effect. Furthermore, the success of the economy in the study area is built upon access to a global gateway such as Heathrow;
 - York Aviation -The Social and Economic Impact of Airports in Europe for ACI Europe this report analysed research by Ernst & Young on location decisions in Europe, research by VNO-NCW on the influence of Amsterdam Schiphol Airport on location decisions and the University of Cologne on the significance of airports for firms. The analysis identified the importance of access to major airports in terms of investment decisions across a range of industry sectors;

- Bel & Fageda Getting There Fast: Globalisation, Intercontinental Flights and Location of Headquarters – Journal of Economic Geography – this research paper considered the influence of intercontinental flights on head office location. It was found that the supply of direct intercontinental flights is effectively a major determinant in the location choices of large firms' headquarters. A 10% increase in the supply of such flights involved a 4% increase in the number of headquarters of large firms located in the corresponding urban area;
- Strauss-Kahn, Vanessa and Xavier Vives, Why and where do headquarters move? (2008), identified that headquarters relocate to metropolitan areas with good airport facilities, low corporate taxes, low average wages, high levels of business services and an agglomeration of headquarters in the same sector of activity;
- A London Chamber of Commerce and Industry Survey of London Business Leaders (2008) found that 94% of respondents believed that Heathrow Airport was very important or important for attracting FDI and tourism to London;
- Institute of Directors (IoD) Flying into the Future (2012) identified that almost six in ten (59%) members agreed that a lack of spare capacity at Heathrow had a damaging effect on inward investment to the UK, compared to just 17% who disagreed. In all regions of the UK, more IoD members agreed than disagreed with this statement;
- Price Waterhouse Coopers Econometric Analysis to Develop Evidence on the Links Between Aviation and the Economy on behalf of the Airports Commission (2013) – this comprehensive study identified that a 1% increase in international seat capacity was associated with a 0.47% increase in FDI inflows and a 0.19% increase in FDI outflows. It should be noted, however, that this finding was not ultimately used in the Airports Commission analysis due to concerns over potential double counting with trade effects. Furthermore, it was recognised that this may have resulted in wider benefits being underestimated;
- Frontier Economics Competition & Choice A Report Prepared for Heathrow (2017) this report attempted to establish a comparative estimate of the connectivity and catalytic benefits (trade and FDI) of expanding Heathrow or Gatwick. The report draws upon evidence put forward by a large number of studies seeking to draw a relationship between connectivity, FDI and the benefits of face-to-face business meetings. It is discussed that face-to-face business meetings play a role in overcoming barriers between economies such as product market regulations; tariffs, quotas and local content requirements; exchange rates; and cultural differences; and as a consequence, FDI and trade is enhanced when connectivity exists to provide the opportunity for face-to-face meetings. The paper compared the evidence published by a variety of academic and industry sources regarding the additional trade facilitated as a result of a 1% increase in business travel. Values ranged from 0.13% to 0.7%, and based upon this, Frontier Economics selected 0.3 as the elasticity of business travel to FDI;
- Eurocontrol The Economic Catalytic Effects of Air Transport in Europe (2005) the study analysed the relationship between air transportation and business investment, and found that a 10% increase in air transportation usage will tend to increase business investment by 1.6% in the long run (the impact takes approximately five years to fully manifest);



- IATA Airline Network Benefits (2006) a study commissioned by IATA surveyed 625 businesses in five countries (China, Chile, United States, Czech Republic and France). It found that in regard to access to effective air transport links, 63% of firms stated that it was vital or very important to investment decisions, while a further 24% said it was somewhat important. On average, 18% of firms reported that the lack of good air transport links had affected their past investment decisions, while 30% of Chinese firms reported that they had changed investment decisions because of constraints on air services;
- → EY UK Attractiveness Survey Building Back Better (May 2020) this survey of potential investors identified the UK's strength in terms of FDI and emphasised the expected resilience and future potential post-COVID-19. "Digital tech, climate change and health were cited as high potential opportunity sectors over the long term. Investors also provided a clear steer on what future policy should focus in the availability of finance and government support, and the quality of infrastructure and skills." This highlights the importance of infrastructure in supporting inward investment decisions. This would include airport infrastructure and the ability to make best use of such infrastructure.
- 7.2 At a most basic level, this establishes the requirement for connectivity between the head office and the branch location, a situation that we do not envisage changing, despite the immediate implications of COVID19 on the use of air travel.
- 7.3 However, increasingly relationships are more complex than that. Major multinational companies now often organise themselves in a form of hub and spoke model. For instance, a US based multinational may have its headquarters in New York. However, its operations around the world may well then be divided into world regions, such as Europe, Asia or Latin America. Operations in these individual regions may then be run from a regional headquarters, for instance in London, Hong Kong or Sao Paulo. There is, therefore, not only a need for connections between, for instance, New York and London but also from London to branch locations within Europe. This helps to explain the need for breadth in connectivity. Ultimately, it should also be recognised that the availability of connectivity may also influence the location of an organisation's global headquarters. If the connectivity from the 'home' city is not sufficient to enable effective management of the business, the headquarters itself may well need to move so it can better serve the needs of the organisation over the long term.
- 7.4 The influence of air services on the location of the branch site, in terms of external functions, also needs to be considered. This relates to the function that the site plays. Branch locations that are, for instance, regional sales offices, providing customer service or support may, in themselves, require air service connectivity for them to reach regional markets for which they are responsible. Again, this suggests the need for breadth in connectivity from a given location to support this type of function and, often the need for intra-European connections to a range of points and at a high frequency.

7.5 The importance of air services in relation to outward FDI and the potential economic benefits associated with this investment are sometimes forgotten. This perhaps reflects the perception that capital outflow from the UK must be a bad thing. However, if investing outside of the UK represents a more efficient use of an organisation's capital, either by allowing it to access cheaper labour or more advanced technologies or more productive approaches, the impact on the UK's long run productivity will be beneficial. Hence, in this regard, the importance of connectivity remains significant in facilitating such productive and beneficial investment. It is simply the direction of flow that is reversed. Outward investors need to be able to manage their investments effectively and air travel can be an important part of this process. If they cannot, the investments will not be made, and associated productivity gains not achieved. It should also be remembered that an 'outward' investor could also be globally mobile and become an inward investor elsewhere. Therefore, outward investors require locations for their 'home' bases that enable this travel. A strong and developing connectivity offer is therefore important in giving comfort that their needs can and will be met.

Trade

- 7.6 The importance of air travel and air connectivity in increasing levels of trade is again well established and examples of research in this area include:
 - Airports Commission Discussion Paper 02: Aviation Connectivity and the Economy (2013) This paper published by the Airports Commission considered evidence for the argument that aviation connectivity supports the UK's economic growth through facilitating trade in goods and services, amongst other channels. The paper highlighted that the importance of connectivity to the trade of goods is reflected in the fact that Heathrow, the UK's best connected airport, is also by far the largest UK port in terms of exports by value to non-EU countries. It was also discussed that the fact the majority of goods sent by air are done so as belly-hold cargo in passenger aircraft is important for understanding potential impacts any changes in aviation connectivity may have on trade;
 - → PwC Econometric Analysis to Develop Evidence on the Links Between Aviation and the Economy (2013) – this report investigated the relationship between connectivity and the trade of goods and services between the UK and international markets. Using seat capacity as a proxy for connectivity, it was found that a 10% increase in international seat capacity is associated with a 1.7% increase in goods imports to the UK and a 3.3% increase in UK goods exports. Similarly, on the trade of services, the same increase in international seat capacity is associated 6.6% increase in imports of services to the UK and a 2.5% increase in UK exports of services;
 - → HM Government Aviation 2050 The Future of UK Aviation (December 2018) this Green Paper published by the Government outlines the Government's strategy to support a safe, secure and sustainable aviation sector by 2050. Supporting regional growth and connectivity is discussed as key objective for the Government, and in order to allow airports to deliver connectivity that their respective regions require, the Government proposes a series of measures to enhance connectivity opportunities. One suggested method is to continue the liberalisation of bilateral air service agreements to reduce barriers for airlines wishing to connect the UK to foreign markets, thus increasing opportunities for trade and travel. In 2017, an updated air service agreement with China was signed, which supports Manchester's direct connection with Beijing. It is estimated that the service has increased export values from Manchester Airport to China to £1.29 billion;

- IATA Airline Network Benefits (2006) this study, conducted in partnership with Oxford Economics, measured the additional benefits generated by airline networks for economic development. The methodology of the study revolved around an extensive survey of businesses and a separate statistical analysis. It was found that the air transport network played a key role in supporting and facilitating economic growth; on average, firms surveyed in the study reported that 25% of their sales were dependent on good air transport links. The accessibility to global markets was also vital to investment decisions – both outwards by domestic firms and inwards by foreign firms. 63% of firms stated that access to the global air network is vital or very important to investment decisions, with a further 24% saying it is somewhat important. On average, 18% of firms report that lack of good air transport links had affected their past investment decisions, with nearly 30% of Chinese firms reporting they had changed investment decisions because of constraints on air services;
- InterVISTAS Economic Impact of European Airports (2015) this report attempted to quantity the economic impact of various European airports for ACI Europe. In order to estimate the catalytic economic impacts, the relationship between aviation and economic growth was analysed using data on connectivity and GDP for 40 countries in the ACI Europe study area between 2000 and 2012. The analysis found that a 10% increase in connectivity was associated with an increase in GDP per capita of 0.5%. A case study involving a small regional airport in Romania was carried out where a survey was sent to local businesses to understand the importance of the local airport on their business. 95% of businesses reported the nearby airport was absolutely essential or essential to them, and 72% of businesses reported that future development of the airport would be very important or somewhat importance to improving the growth of their business;
- CBI Trading Places (2013) this report established a strong link between the level of air service connectivity and trade between the UK and the World's eighth largest high growth economies. It also found similar patterns for the six largest EU economies. The report estimated that an additional daily service to each of the World's largest high growth economies had the potential to deliver £1 billion in additional trade;
- → Frontier Economics Connecting for Growth: the role of Britain's hub airport in economic recovery (2011) this report also established a clear correlation between the level of trade and air connectivity in the UK, albeit causality was not established. Furthermore, the report identified that UK businesses traded 20 times as much with countries where there are at least daily flights compared to those with less frequent or no direct connections. It was estimated that UK trade could be increased by around £1.2 billion per annum if there were sufficient capacity at Heathrow to accommodate viable routes to emerging markets.
- 7.7 In relation to trade in goods, air cargo is a quick and efficient means of transporting goods around the world, which makes economic sense in relation to the transport of some goods, primarily those that are high-value, low weight or time critical. In this sense, air connectivity enables UK firms to enter overseas export markets effectively. Equally, air cargo enables UK firms to access suppliers overseas that may offer lower priced or better alternative inputs to production processes, and it enables UK consumers to import goods from overseas that may again be cheaper or of better quality than those available from domestic suppliers. In essence, trade allows countries to use their comparative advantage to maximise efficiency.



- 7.8 However, passenger connectivity is also important in terms of trade. In relation to the trade in goods, companies need staff to travel to meet potential customers, to secure deals and to provide after sales care. This relates to both exports and imports. Trade in services is also heavily reliant on air passenger connectivity. Again, companies need staff to travel to meet potential customers and secure deals but, in contrast to the trade in goods, they may also need individuals to travel to actually deliver the services being sold. Air connectivity is exceptionally effective at reducing the perceived distance between markets. Good connectivity can dramatically reduce the time it takes to reach some markets, reducing perceived distances and offsetting the impacts of unfamiliarity. There is also the potential for air connectivity to enable firms to spread competition beyond simply price by improving customer service and support, potentially counteracting the final factor in some markets.
- 7.9 On this basis, air service connectivity is important in facilitating trade in both goods and services. Whilst this is bi-directional encouraging imports as well as exports, ultimately, enabling bi-directional international trade facilitates economic growth through enabling countries to develop comparative advantage. Exporters will be able to widen the market for their goods and services, enabling them to benefit from economies of scale and increase productivity, while more broadly potentially growing to meet wider market demand and drawing in more labour and capital from economic sectors where the UK does not hold a comparative advantage. This structural change within the UK towards more productive activities has long been a key Government objective, accepting that there may be declines in some domestic sectors where imports from other countries which hold a comparative advantage but, ultimately, this process will result in a more efficient global allocation of resources and increased productivity.
- 7.10 The consequence is that better connected regions will be further up the productivity curve and better able to avail of trading opportunities than parts of the UK that are less well connected.

Labour Market Effects

- 7.11 An area that is increasingly being identified as one of the channels of impact through which air connectivity operates is its influence on the labour market through its ability to influence individuals' decisions around where and how much labour to supply. This effect can, in broad terms, be divided in to two parts.
- 7.12 At one level, air connectivity is important for the UK in being able to attract talented individuals to live and work in the country on a permanent basis. Research undertaken in 2009 for the British Chamber of Commerce by Colin Buchanan and Partners (2009) on the economic impacts of hub airports identified that there were around 3.8 million overseas born workers in the UK, of which around 2.6 million were from outside the EU. The report emphasised that for this group, while modern communication technologies were extremely important for day to day contact with friends and family overseas, it was not ultimately a substitute for the physical access that air services provide. The research emphasises that, if the UK is to retain the economic advantages it has gained by its willingness to recruit skilled people from abroad, it needs to retain the air connectivity needed to support the quality of life of this group. As the UK moves outside of the EU, with a greater emphasis on attracting highly skilled individuals from across the globe, the requirement for global connectivity will need to adapt.

- 7.13 Air connectivity is also essential in supporting the life style choice of an increasing number of high value added individuals who use air services to commute for short periods or even weekly while living overseas. These individuals often provide specialist or high value services that are part of what enables the UK's competitive advantage. In both cases, the availability of air service connectivity has implications for the long term labour supply for the home economy. The ability to attract skilled migrants to live and work in the country both increases the total amount of labour available to support output and has potential implications for long run productivity in the economy as those with new or higher level skills are attracted to work.
- 7.14 These factors are important in ensuring that Northern Ireland is able to attract and retain the skilled workers require to support broader economic development initiatives.



8. Appendix B: Globalisation and World Cities Network Rankings

The World According to GaWC 2020

Alpha ++	London, New York
Alpha +	Hong Kong, Singapore, Shanghai, Beijing, Dubai, Paris, Tokyo
Alpha	Sydney, Los Angeles, Toronto, Mumbai, Amsterdam, Milan, Frankfurt, Mexico City, Sao Paulo, Chicago, Kuala Lumpur, Madrid, Moscow, Jakarta, Brussels
Alpha -	Warsaw, Seoul, Johannesburg, Zurich, Melbourne, Istanbul, Bangkok, Stockholm, Vienna, Guangzhou, Dublin, Taipei, Buenos Aires, San Francisco, Luxembourg, Montreal, Munich, Delhi, Santiago, Boston, Manila, Shenzhen, Riyadh, Lisbon, Prague, Bangalore
Beta +	Washington DC, Dallas, Bogota, Miami, Rome, Hamburg, Houston, Berlin, Chengdu, Dusseldorf, Tel Aviv, Barcelona, Budapest, Doha, Lima, Copenhagen, Atlanta, Bucharest, Vancouver, Brisbane, Cairo, Beirut, Auckland
Beta	Ho Chi Minh City, Athens, Denver, Tianjin, Abu Dhabi, Perth, Casablanca, Kiev, Montevideo, Oslo, Helsinki, Chennai, Hanoi, Nanjing, Philadelphia, Cape Town, Hangzhou, Nairobi, Seattle, Manama, Karachi, Rio de Janeiro, Chongqing, Panama City
Beta -	Wuhan, Manchester, Geneva, Osaka, Stuttgart, Belgrade, Calgary, Monterey, Kuwait City, Caracas, Changsha, Bratislava, Sofia, San Jose (CR), Zagreb, Dhaka, Xiamen, Tampa, Zhengzhou, Tunis, Almaty, Shenyang, Lyon, Minneapolis, Nicosia, San Diego, Amman, Xi'An, Guatemala City, Dalian, St Petersburg, Lagos, Quito, Jinan, San Salvador, Kampala, George Town (Cayman), Muscat/Ruwi, Detroit, Edinburgh, Jeddah, Hyderabad (India), Lahore, Austin
Gamma +	San Jose, Kolkata, Charlotte, Saint Louis, Pune, Antwerp, Rotterdam, Adelaide, Porto, Baku, Guadalajara, Ljubljana, Qingdao, Algiers, Suzhou, Belfast, Glasgow, Medellin, Cologne, Phnom Penh, Islamabad, Phoenix, Riga, Tbilisi, Kunming, Ahmedabad, Dar Es Salaam, Hefei, Orlando, Baltimore
Gamma	Durban, Vilnius, Gothenburg, San Juan, Nantes, Ankara, Santo Domingo, Wroclaw, Ottawa, Dakar, Malmo, Bristol, Tirana, Colombo, Turin, Valencia (Spain), Guayaquil, Taizhong/Taichung, Managua, La Paz, Nashville, Tegucihalpa, Haikou, Wellington
Gamma -	Port Louis, Accra, Asuncion, Bilbao, Maputo, Douala, Nassau, Harare, Poznan, Luanda, Cleveland, Fuzhou, Nagoya, Kansas City, Katowice, Malaga, Queretaro, Harbin, Milwaukee, Penang, Salt Lake City, Columbus (Ohio), Kaohsiung, Limassol, Sacramento, Belo Horizonte, Lausanne, Taiyuan, Edmonton
High Sufficiency	Birmingham (UK), Krakow, Abuja, Tijuana, Port of Spain, Abidjan, Curitiba, Ningbo, Hartford, Yangon/Rangoon, Seville, Puebla, Raleigh, Indianapolis, Brasilia, Johor Bahru, The Hague, Yerevan, Strasbourg, Macau, San Antonio, Leeds, Lusaka, Ulan Bator, Damman, Cincinnati, Porto Alegre

Sufficiency Tallinn, Aberdeen, Astana, Bologna, Marseille, Cebu, Leipzig, Utrecht, Merida, Newcastle (UK), Ciudad Juarez, Surabaya, Nurnberg, Cali, Florence, Naples, Canberra, Pittsburgh, Izmir, Sarajevo, Portland (Oregon), Las Vegas, Liverpool, Hanover, Urumqi, Aguascalientes, Minsk, Christchurch, Jacksonville, Richmond, Skopje, Campinas, Tashkent, Toulouse, Alexandria, Zhuhai, San Luis Potosi, Chisinau, Guiyang, Cordoba, Leon, Cochin/Kochi, Valparaiso/Vina del Mar, Oklahoma City, Des Moines, Nanning, Changchun, Nanchang, Bishek, San Pedro Sula, Southampton, Montpellier, Tulsa, Podgorica, Valencia (Ven), Lodz, Buffalo, Graz, Genoa, Louisville, Winnipeg, Rochester, Windhoek, Vientiane, Fukuoka, Halifax, Linz, Shijiazhuang, Hamilton, Gabarone, Port Elizabeth, Birmingham (Alabama), Nottingham, Pretoria, Recife, Wuxi, Kigali, Santa Cruz, Mexicali, Lille, Bordeaux, Bursa, Dresden, Libreville, Port Harcourt, Nice, Hsinchu City, New Orleans, Arhus, Quebec, Liege, Bergen, Basel, Labuan, Jerusalem, Hohhot, Bandar Seri Begawan, Lanzhou, Bremen, Saskatoon, Kingston (Jamaica), Rosario, Grenoble, Haifa, Baghdad, Barranquilla, Cardiff, Mannheim, Chihuahua, Memphis, Palo Alto, Omaha, Bern, Tainan, Honolulu, Dushanbe, Kabul, Sheffield, Kinshasa, Harrisburg, Salvador, Kazan, Reykjavik, Dortmund, Goiania, Port Moresby, Hobart, Sapporo, Kyoto, Brazzaville, Novosibirsk, Blantyre, Essen, Kobe, Malacca/Melaka, Lome, Palermo, Pusan/Busan, Yokohama, Sendai, Trieste, Sanaa, Suva

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