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Examination of State Funding to the Aviation Sector during the Covid-19 crisis

JANE BURMANJE*, MARY ELLEN O'KEEFFE* AND LUKE DALY*

IGEES UNIT* & TRANSPORT VOTE

DEPARTMENT OF PUBLIC EXPENDITURE AND REFORM

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Executive Summary

As a small open island economy, the Irish aviation sector is essential for tourism, international trade and for connecting Ireland with the rest of the world. The aviation sector is also a significant contributor to the Irish economy and provides employment for an estimated 143,000 people; 39,000 people directly and 105,000 employees indirectly in areas such as the supply chain and tourism. Prior to Covid-19, the sector had experienced prolonged and sustained growth, reflecting growth in the wider economy. **Passenger numbers coming through Irish airports grew significantly from almost 25 million people in 2013 to 38 million in 2019, an increase of 54 per cent.**

<u>Impact of COVID-19 on the Aviation Sector</u>

The outbreak of Covid-19 has had a significant negative impact on the aviation sector, with passenger air travel particularly affected. The number of passengers handled in the main airports fell to 8.3 million in 2020, a decline of 78 per cent on 2019 levels. The impact of Covid-19 continued in 2021. The number of passengers handled in the first half of the year was just over 1 million, a fall of 94 per cent on the same period in 2019. Recognising the impact of Covid-19 on the aviation sector, the State has provided significant resources to support the sector. To date, €254 million has been provided to the aviation sector in the form of sector specific supports while the sector has also benefited from an estimated €267 million in 'horizontal' or non-sector specific business supports to end June including wage subsidy schemes. In terms of the sector specific supports:

- The majority of this support is in the form of grants (four supports, €64 million).
- The sector has also been supported by loans at commercial rates from the Pandemic Stabilisation and Recovery Fund (PSRF) with €190 million provided (two supports). The majority of this, €150 million, has been provided to Aer Lingus in the form of a debt facility while €40 million has been provided to Dublin Airport Authority (daa) PLC in the form of bond issues.

<u>International Response to Covid-19 for Aviation</u>

The paper also compares supports for the sector across countries, excluding horizontal supports. Of countries considered in the analysis, airlines have been the main focus for these supports and in particular airlines of national interest to countries. Ireland is the only country of the countries under consideration which has given the majority of support, in terms of the number of supports, to airports rather than airlines, reflecting the relative strength of Irish based airlines pre-Covid. Of the supports offered to airlines across countries, loans and recapitalisation measures are the most common. The majority of countries have granted favourable loans with low interest rates and/or state guarantees. In contrast, Ireland has afforded aviation enterprises a considerable number of non-reimbursable supports in the form of grants.

<u>Future Outlook</u>

Looking forward, Eurocontrol's forecast shows that Irish air traffic levels are likely to return to 2019 levels by 2025. The rate of recovery of the sector is likely to be positively impacted by factors such as increasing vaccination levels as well as pent up consumer demand for foreign travel. Negative factors such as financial uncertainty and emerging Covid-19 variants could also impacts the rate of recovery. Recovery is also expected to take place in the context of structural change in the sector with continued investment in environmentally friendly business practices required to lower emissions in line with the Paris Agreement 2015. In addition to this, it is not yet clear what impact increased remote working may have on business related travel. Furthermore, there may also be a 'twin-track' recovery in the Irish aviation sector, with Dublin airport recovering strongly and regional airports less strongly. In the short term to continue to support the sector, it may be necessary for access to horizontal business supports to continue in 2022 and may also require additional future funding under the Regional Airports Programme, particularly for Cork and Shannon Airport. Under Budget 2022, Regional Airport Programme funding has increased from €21 to €36 million to facilitate the temporary inclusion of both Cork and Shannon airports in the programme.

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1. Introduction

In the last decade, the international aviation industry experienced a decade of growth, referred to as a "supercycle" (KPMG, 2020). During this time, the Irish aviation sector was also experiencing steady growth. From 2011 to 2019, passenger numbers in Irish airports grew on average by 5.6 per cent each year. However, in 2020 the aviation industry experienced the worst exogenous shock in its history with the global outbreak of Covid-19 which halted global air connectivity forcing two thirds of the world's fleet of aircraft to be grounded in April 2020 (Lange as cited in Garrow & Lurkin, 2021). In contrast to previous air industry shocks such as the September 11th attacks in 2001 or the SARS epidemic in 2003 which were more limited geographically and in duration, the Covid-19 shock has impacted air travel worldwide and continues to actively impact the sector more than a year later. In the past year, the Irish aviation sector has availed of a wide range of state support measures, both specifically for the sector (largely targeted at airports) and horizontal business supports such as tax deferrals and wage subsidies. Similarly, many countries have put in place sector specific and non-specific packages of aid measures to support their aviation sector.

This paper aims to:

- Provide an overview of the aviation sector in Ireland, highlighting key features and the impact Covid-19 has had on the sector.
- Examine the scale and the scope of State funding to the aviation sector during the Covid-19 crisis.
- Assess how these interventions compare internationally in terms of policy and funding levels/type.
- Briefly discuss the outlook for the sector.

The paper is structured as follows. Section 2 looks at the Irish aviation sector as a whole prior to the outbreak of the Covid-19 pandemic, as well as the effects of the pandemic on the sector. Section 3 provides an overview of the State supports provided to the aviation sector in the wake of the pandemic. Section 4 looks at pandemic related state supports provided by other countries to the sector. Section 5 looks at prospects of and factors that may affect recovery.

Methodology and Limitations

This paper has been completed as a desk based review which examines the aviation sector in Ireland and the supports provided to the sector during Covid-19. The paper also assesses how these supports compare internationally in terms of type of support and funding level. The paper makes use of a range of data sources including CSO aviation statistics as well as information provided by the Department of Transport. The paper also relies on findings and discussion of topics from other reports, research papers and expenditure reviews that will be referred to throughout the paper. Information on the supports provided by other countries detailed in this paper has been largely sourced from a paper entitled "State Support to the Air Transport Sector: Monitoring developments related to the Covid-19 crisis" by the OECD (2021) as well as press releases by the European Commission detailing supports and conditions, amongst other sources. The main limitation of this paper is that it focuses on passenger transport by air only and does not examine the indirect impacts this may have on other related sectors such as tourism. In addition, the paper is limited in the number of countries it compares Ireland to. Nine countries are included in the analysis, eight of which are members of the European Union.

2. Overview of the Irish Aviation Sector

This section of the paper takes a holistic look at the position of the Irish aviation sector prior to the Covid-19 pandemic. It also looks at the effects of the pandemic and resulting travel restrictions on the sector.

2.1 Key Features

Key Features of the Irish Aviation Industry

- Ireland has three state airports; Dublin, Cork and Shannon, and three regional airports; Ireland West Airport Knock, Kerry and Donegal providing scheduled connectivity.
- The three state airports operate as commercial semi-state bodies. daa PLC is responsible for the management and operation of Cork and Dublin Airports. Shannon Group PLC oversees the management and operation of Shannon Airport (Department of Transport, 2019a).
- Ireland is serviced by two main airlines, Ryanair and Aer Lingus. Both airlines are privately owned companies, with Ryanair being the third largest privately owned airline in the world when measured in terms of market capitalisation (OECD, 2021).
- Ireland is also a leader in the area of aircraft finance and leasing, with 14 of 15 of the world's top aircraft lessors being based in Ireland.

The aviation sector is hugely important to Ireland's connectivity with the UK, Europe, the US and the wider world, both in the context of Ireland's geography as an island nation and in comparison with sea travel. The number of passengers using air to travel to and from Ireland grew to record levels in 2019, with more than 38 million passengers being handled by Irish airports. During recent years air travel has also grown in terms of arrivals and departures when compared with sea travel which is more limited in terms of the number of routes and countries served. In 2019 air travel accounted for 94 per cent of overseas passenger arrivals and departures while sea travel accounted for 6 per cent. In addition, air connectivity fosters the exchange of goods, investment and people supporting foreign direct investment and tourism which are both key contributors to economic development in Ireland.

Two international airlines are the anchors of the Irish aviation sector, Aer Lingus and Ryanair, they provide approximately 80 per cent of the available seat capacity in the Irish market (Aer Lingus, 2020). Ireland also controls over 60 per cent of the entire global leasing market for aircraft, and has a significant international position in maintenance, repair and overhaul (MRO). The state (Dublin, Cork and Shannon) and regional airports (Donegal, Ireland West Airport Knock and Kerry) act as enablers of business growth and economic development (NCADF, 2021). In 2019, the International Air Traffic Association (IATA) ranked Ireland as 36th out of 211 economies in terms of air connectivity (IATA, 2020).

Table 1 looks at the contribution of the air transport sector to the Irish economy in terms of Gross Value Added (GVA), number of enterprises and employment figures from the CSO's Labour Force Survey. The sector is not a significant contributor in terms of GVA, contributing less than 1 per cent of total GVA in 2019. The air transport sector comprised of 91 enterprises in 2019. Over the course of 2019, the air transport sector had an average of 8,000 employees according to the CSO's Labour Force Survey.[1] daa PLC had an average 4,139 employees in the same year and Shannon Group (SG) PLC had

[1] This includes air transport related employment in passenger air transport, freight air transport and space transport.

an average of 512 employees. The pandemic has resulted in a decrease in numbers employed in the sector with the number of employees falling to an average of 3,205 and 306 in 2020 for daa and Shannon PLCs respectively.

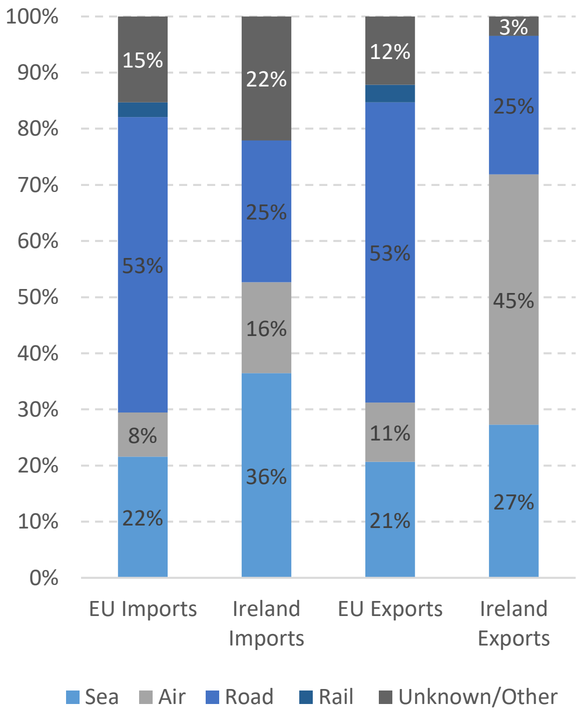
Table 1: Air Transport Sector in 2019, GVA, number of enterprises and employment average

GVA	No. of enterprises	Employment (2019 Avg)	daa PLC (2019 Avg)	SG PLC (2019 Avg)
0.51%	91	8,000	4,139	512

Sources: CSO, daa Annual Report 2020, Shannon Group Annual Report 2020.

A report by Aviation: Benefits Beyond Borders in conjunction with Oxford Economics in 2018 found that the air transport sector, in this case comprising of airlines, airport operators, airport on-site enterprises, aircraft manufacturers, and air navigation service, supplied 39,000 jobs in Ireland. In addition to this, it found that the aviation sector was a significant contributor of indirect employment, supporting 25,000 jobs in the supply chain, 69,000 in the tourism industry and 11,000 resulting from employee spending (2018). As of 2015, the associated spending of employees of the aviation sector was worth €0.9 billion to Ireland's GDP (Department of Transport, Tourism and Sport, 2015). Overall, the Irish tourism sector supports 280,000 jobs, making it a highly significant jobs contributor. As 75 per cent of tourism business comes from international visitors, the aviation sector is vital to the success of the tourism sector (ROG, 2020).

Figure 1: Value of Imports and Exports by Mode of Transport, EU and Ireland, 2020



Source: Eurostat*

*EU data is based on 19 reporters, excluding Ireland.

In addition to the role that it plays in relation to connectivity, air transport is also vital as a mode of transport for Ireland's international trade in goods. In 2020, Ireland exported (imported) goods valued at €157 billion (€87 billion), of which 45 per cent (16 per cent) of these goods for export (import) were transported by air, which is far above the EU average of 11 per cent (8 per cent). Air transport is particularly important for extra-EU exports. In 2020, 68 per cent (in terms of value) of exports to countries outside the EU were transported by air. While there was a 78 per cent decrease in the number of passengers transported by air in 2020 compared to 2019, there was only a 5 per cent decrease in freight transported by air when measured in terms of weight during the same period. Despite the 5 per cent decrease in freight transported by air in terms of weight, there was a 6 per cent increase in the value of goods exported from Ireland using all modes of transport in 2020. This indicates that freight air transport was impacted to a less severe degree by the Covid-19 pandemic than passenger air transport.

2.2 Pre-Covid-19 Expenditure on Aviation

Traditionally, the aviation sector has been a profitable sector that has not required Exchequer supports. In particular, two semi-state companies, daa PLC and the Irish Aviation Authority (IAA) have provided dividends to the State in recent years. For example between 2016 and 2019, daa provided €124.3 million to the State in the form of dividends with IAA providing a further €56 million. The State has however provided Exchequer funding to the smallest regional airports under a number of successive Regional Airports Programmes, in recognition of the role they play in facilitating access to the regions they serve. Without State support, these smaller airports would struggle to comply with international regulatory obligations.

Since 2011, Government policy has been to restrict grant assistance to safety and security related projects and is provided, in compliance with EU State aid rules, via the Regional Airports Programme (RAP). Regional airports are defined by the Regional Airports Programme 2021-25 as being airports that operate scheduled passenger services and handle less than 1 million passengers on average per annum during the two financial years preceding the year in which aid is granted (Department of Transport, 2021a). In addition to the funding of the Public Service Obligation (PSO) service between Donegal and Dublin (the Kerry PSO service is now operated on a commercial basis by Ryanair) under the Programme, a further 3 schemes are provided under the RAP.

There are two capital expenditure schemes (CAPEX, which supports projects with an associated economic activity and Public PoIicy Remit-Capital (PPR-C), which supports projects of a non-economic nature). Safety and security related projects are prioritised, although sustainability projects are also considered for funding under the new Programme. There is one operational expenditure scheme (Public Policy Remit-Operational (PPR-O)). Supports under this PPR-O scheme are concentrated on wage and wage related costs in the areas of air traffic control, safety and security, as these three areas constitute the largest portion of eligible costs at airports. However, where the budget is sufficient to cover more than wage costs, all other non-economic expenditure may be considered. Previous programmes provided for an additional operational expenditure scheme (OPEX). This scheme supported funding for operational activities of an economic nature at airports- a type of support that is not encouraged by the EU Commission and is not included in the new Programme.

Exchequer support provided to regional airports through these schemes over the last five years can be seen in Table 2. The funding which has been provided to regional airports from 2016 to 2020 was largely in the form of CAPEX funding for essential safety and security services, with Ireland West Airport Knock being the biggest beneficiary across each of the five years. Waterford Airport received OPEX, PPR-O and PPR-C funding in 2016, but has not received any funding under these schemes since (Department of Transport, 2021b). Following a continued decline in demand for services over successive years from 2008, all remaining scheduled flights ceased at Waterford Airport in June 2016. Waterford Airport currently have no passenger services, and as such, do not meet the connectivity criteria under the current programme and are therefore ineligible for funding.

Table 2: Exchequer Support for Regional Airports 2016-2020, €000s

Beneficiary of Aid and Scheme	2016	2017	2018	2019	2020
Donegal Airport (CAPEX)	231	0	239	461	0
Donegal Airport (PPR-C)	220	0	0	363	245
Donegal Airport (OPEX)	0	0	0	0	0
Donegal Airport (PPR-O)	357	668	657	689	581
Kerry Airport (CAPEX)	181	345	814	630	97
Kerry Airport (PPR-C)	129	237	372	1,288	1,058
Kerry Airport (OPEX)	0	0	0	0	0
Kerry Airport (PPR-O)	627	1,075	1,199	1,278	1,500
Ireland West Airport (CAPEX)	1,201	502	1,477	6,702	553
Ireland West Airport (PPR-C)	765	829	783	1,044	330
Ireland West Airport (OPEX)	0	0	0	0	0
Ireland West Airport (PPR-O)	968	1,868	1,917	1,737	1,354
Waterford Airport (CAPEX)	0	0	0	0	0
Waterford Airport (PPR-C)	18	0	0	0	0
Waterford Airport (OPEX)	594	0	0	0	0
Waterford Airport (PPR-O)	426	0	0	0	0
Total	**5,717**	**5,524**	**7,458**	**14,192**	**5,718**

Source: Department of Transport

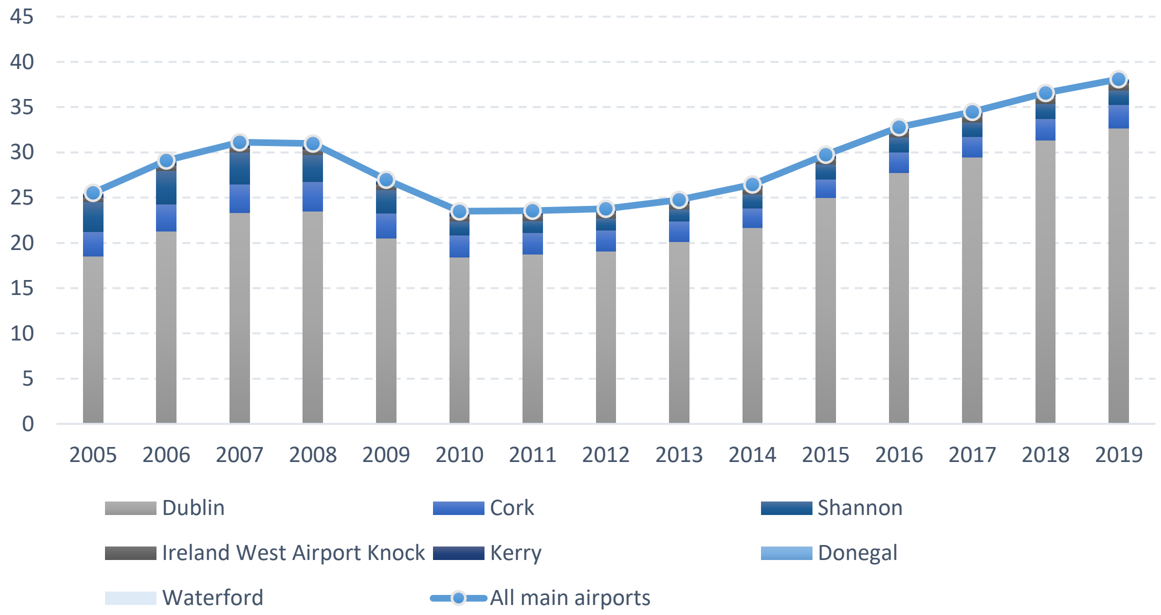
This funding was renewed in 2021 under the Regional Airports Programme 2021-2025. €21.3 million has been provided under the programme for 2021: €10 million is allocated to projects under the capital schemes (Capital Expenditure (CAPEX) and Public Policy Remit (PPR-C) and €11.3 million is allocated to support operational activities (Public Policy Remit Operational (PPR-O)) and funding for the delivery of PSO air services which are provided under contract. Eligible airports are regional airports that have scheduled services which facilitate international connectivity directly or indirectly through a hub such as Dublin Airport. Donegal, Ireland West Airport Knock and Kerry Airports are eligible for this programme under these criteria. Given the negative effects of the pandemic on passenger numbers for Cork and Shannon Airports, these airports will meet Programme criteria to qualify in 2022. Qualification for future years will depend on the recovery of the sector beyond 2022. The programme is designed and administered in line with the EU's General Block Exemption Regulation (GBER).

Kerry and Donegal airports have also benefitted from Public Service Obligation (PSO) routes from each respective airport to Dublin. However, following the collapse of Stobart Air (the provider of the services) in June 2021, the Kerry route is now operated commercially by Ryanair. A 2019 Spending Review of the Regional Airports Programme by the Department of Transport found that these routes cost the exchequer an average of €7.55 million per year between 2012 and 2018. These routes provide additional national connectivity between remote areas in the west of Ireland and the capital city, whilst also providing Kerry and Donegal airports with additional passengers (Department of Transport, 2019b).

2.3 Pre-Covid-19 Trends

Prior to the effects of the pandemic on the aviation sector in 2020, there had been year-on-year growth in the total number of passengers handled in Irish airports. In 2019, 38.1 million passengers were handled by the main Irish airports, a 4.2 per cent increase on the number handled in 2018. Passenger numbers increased in 2019 across the main five airports apart from Shannon, which had a decrease in the number of passengers handled in comparison to 2018. There are a number of reasons for this deterioration which were outside the control of Shannon Airport. The decline in passenger numbers is attributable in the main to global grounding of the Boeing 737 MAX which resulted in the cancellation of the Air Canada and Norwegian Air services which took c.120,000 seats out of the marketplace in the 2019 summer season. Also, during 2019, Kuwait Airlines ceased its transit stopover in Shannon.

Figure 2: Passengers numbers handled by main Irish Airports 2005 – 2019, millions



Source: CSO

There have also been changes in the distribution of passengers across airports in the last number of years. Between 2005 and 2019, Dublin Airport increased its share of the passengers being handled by Irish airports by 13 percentage points (p.p.), with a fall in passenger shares at Shannon and Cork Airports (see Table 3).

Table 3: Changes in Distribution of Passengers across Airport, 2005-2019 (%)

Airport	2005	2019	2005 v 2019 (p.p.)
Dublin	72	86	13
Cork	11	7	-4
Shannon	13	4	-9
Ireland West Airport Knock	2	2	0
Kerry	2	1	-1

Source: CSO

Irish airports also have a varying level of dependency on their five most popular routes. The most popular routes are of particular importance to the regional airports, accounting for 91 per cent of passengers handled by Kerry Airport and 66 per cent of passengers handled by Ireland West Airport Knock in 2019. The five most popular routes are also significant contributors to passenger numbers in the three state airports, particularly Cork and Shannon. They account for 45 per cent of passengers handled in Cork Airport and 50 per cent of passengers handled in Shannon Airport in 2019. The most popular routes contributed 20 per cent or circa 6.3 million of the passengers handled by Dublin Airport in 2019 (see Table 4).

Table 4: Percentage of passengers handled by each airport that used a top five route in 2019

Airport	Percentage
Dublin	20
Cork	45
Shannon	50
Ireland West Airport Knock	66
Kerry	91

Source: CSO[2]

London routes are the most popular for passengers being handled by Irish airports. The various London routes, Heathrow, Stanstead, Gatwick, and Luton feature heavily in the top routes from each of the Irish airports, with two London routes taking the two top spots for each airport. Other UK routes are also very popular with Manchester, Liverpool, Birmingham and East Midlands featuring in the top five routes of three airports. European routes such as Amsterdam, Malaga, Paris, Frankfurt and Berlin also feature in the top five routes of three airports. The only non-UK/European route to feature in any of the main Irish airports is Shannon – New York.

2.4 Impact of Covid-19

In 2020, 8.3 million passengers were handled by the five main Irish airports, Dublin, Cork, Shannon, Ireland West Airport Knock, and Kerry, which is a decline of 78 per cent on 2019. The IAA reported that their air traffic control division managed less than 500,000 flights in 2020 which is the lowest number of flights recorded in Irish airspace since the late 1980's (IAA, 2021a). Table 5 compares the number of passengers handled by Irish airports in 2019 with 2020 and 2021 by quarter. Q1 of 2020 shows a drop of 20 per cent on the same period in 2019, due to travel restrictions beginning in March 2020. The continuing effects of travel restrictions can be seen in Q2, Q3 and Q4 of 2020. In the first half of 2021, Irish airports handled 94 per cent less passengers than they did in the same period in 2019.

Table 5: Drop in passengers handled by Irish Airports in 2020 and 2021 ('000s)

Quarter	2019	2020	2021	2019 v 2020 (%)	2019 v 2021 (%)
Q1	7,436	5,917	419	-20	-94
Q2	10,480	164	596	-98	-94
Q3	11,597	1,453	.	-87	.
Q4	8,541	759	.	-91	.
Total	**38,053**	**8,293**	**1,015**	**-78**	

Source: CSO. Note: Quarterly data for Donegal Airport is not available.

[2] Data not available for Donegal Airport, Waterford Airport ceased handling scheduled flights in 2016.

The effects of Covid-19 pandemic restrictions across Irish airports was largely uniform, with each airport experiencing a decline of similar magnitude in the number of passengers handled in 2020. Shannon airport saw the largest decrease, handling 83 per cent fewer passengers in 2020 than in 2019. Shannon was particularly impacted with regards to a loss in strategic connectivity to key locations such as London Heathrow and the United States. Although limited services on the Heathrow route have returned temporarily, Cork airport is closed for runway works. There has been no transatlantic flights from Shannon Airport since March 2020.

Table 6: Drop in passengers handled across Irish airports in 2020 ('000s)

Airport	2019	2020	2019 v 2020 (%)
Dublin	32,676	7,267	-78
Cork	2,585	527	-80
Shannon	1,616	274	-83
Ireland West Airport Knock	805	143	-82
Kerry	370	83	-78
Donegal	48	18	-63
Total	**38,101**	**8,311**	**-77**

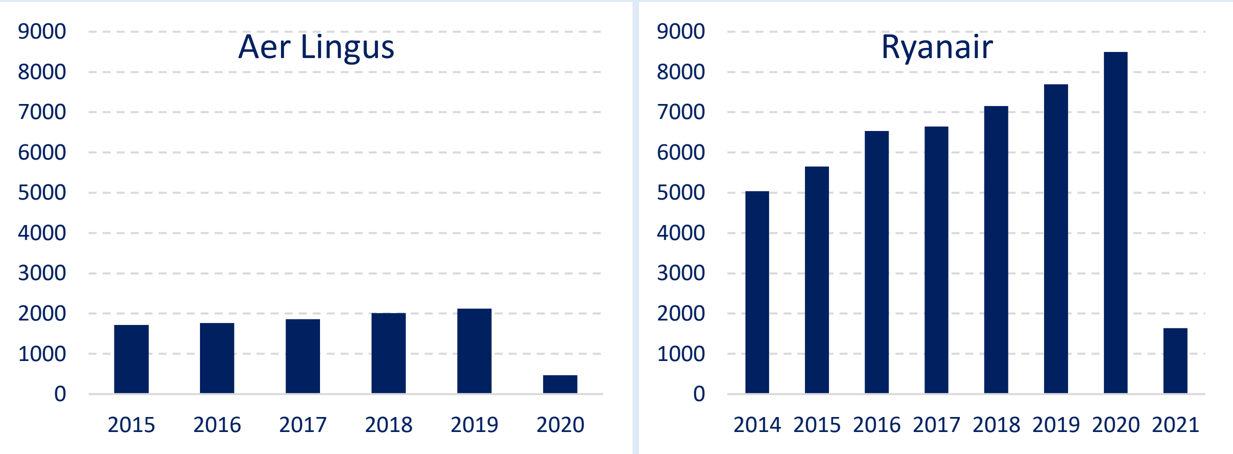
Source: CSO

Airlines have also been impacted by Covid-19. Stobart Air ceased trading in 2021 and appointed a liquidator, citing the pandemic as a cause (IAA, 2021b). Ryanair stepped in to operate the Dublin-Kerry route on a commercial basis while the PSO route that Stobart Air operated from Donegal-Dublin was subsequently awarded to Swedish airline Amapola for the temporary period pending the tender launch of the longer term PSO contract which was advertised for tender in August 2021 (Department of Transport, 2021c, 2021d). Both Ryanair and Aer Lingus cut services and announced the closure of aircraft bases and cabin crew bases in Cork and Shannon due to pandemic related travel restrictions. Some of these decisions have now been reversed as the country has reopened for international travel, although the situation is still fragile (Department of Transport, 2020, Shannon Airport, 2021a, 2021b).

Box 1: Irish Airlines

The Irish aviation sector is dominated by two airlines, Ryanair and Aer Lingus, both of which have their headquarters in Ireland. As outlined in OECD (2021), Ryanair was the third largest privately owned airline in the world at end-2019 while Aer Lingus is a subsidiary of the International Airlines Group (IAG) which also includes British Airways, Iberia and Vueling. Taken together, the airlines account for approximately 70-80 per cent of the Irish market with regard to the number of passengers (Department of Transport, 2015). Prior to Covid-19 both Ryanair and Aer Lingus were performing strongly with year on year growth (9.2 per cent and 5.5 per cent respectively on average over the period 2015-2019) in total revenue recorded over the years 2014-2019 (Figure 1 below).

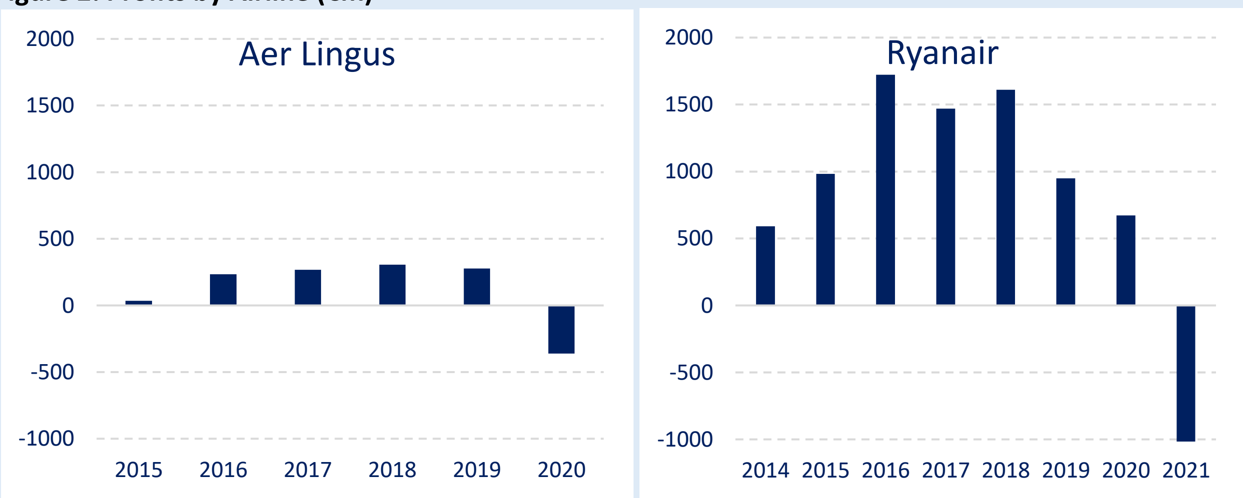
Figure 1: Total Revenue by Airline (€m)



Source: IAG and Ryanair Annual Reports 2015-2020. Note: Aer Lingus data is on a calendar year basis (January – December) while Ryanair is on a financial year basis (31st March – 31st March).

On the back of this increase in revenues in recent years, both airlines recorded profits over the period 2015-2019. However, the fall in passenger numbers has significantly decreased revenue and so losses were incurred. As a result of the strong performance pre-Covid-19, Ryanair and Aer Lingus may be in a stronger position than other airlines in Europe which received State supports.

Figure 2: Profits by Airline (€m)



Source: IAG and Ryanair Annual Reports 2015-2020. Note: Aer Lingus data is on a calendar year basis (January – December) while Ryanair is on a financial year basis (31st March – 31st March).

3. State Supports to the Aviation Sector in Ireland

Since the start of the crisis the Irish Government has supported the aviation sector with a range of fiscal support measures. This section presents the aviation supports available and availed of by qualifying aviation sector businesses from March 2020 to June 2021.

3.1 Aviation Sector Supports

Table 7 provides an overview of the supports provided to the sector. In total, €521.20 million in support has been made available to airports and airlines. €190 million of reimbursable supports in the form of commercial rate loans and debt facilities was awarded to daa PLC and Aer Lingus respectively under the Pandemic Stabilisation and Recovery Fund (PSRF). A further c.€267 million in horizontal supports was awarded to the sector, of which a significant proportion came via the wage subsidy schemes (Temporary Wage Subsidy Scheme (TWSS) and Employment Wage Subsidy Scheme (EWSS)). €64 million has been awarded to the aviation sector in the form of grants.

Table 7: Aviation Supports March 2020 – June 2021

Scheme	Type of Support	State Aid Framework	Airport/Airline	Estimated amount €m
Covid-19 Regional State Airport Scheme	Capital and Operational grant	General Block Exemption Regulation (GBER)	Cork and Shannon	**€32.1m**
Covid Supplementary Supports Schemes for Irish Airports, of which;	Direct grant (Damages compensation)	Treaty of the Functioning of the European Union (TFEU)		**€26**
a.		Article 107(2)(b) of the TFEU	Dublin, Cork and Shannon Airports	€20
b.		Sections 3.1 and 3.12 of the TFEU	Ireland West Airport Knock, Kerry and Donegal	€6
Emergency Funding for Hold Baggage Screening project	Direct grant	General Block Exemption Regulation (GBER)	Shannon Airport	**€6.1**
Pandemic Stabilisation and Recovery Fund, of which;				**€190**
a.	Participation of Sovereign Wealth Fund in bond issues – ISIF		daa PLC (Dublin and Cork)	€40
b.	Debt facility provided under ISIF		Aer Lingus	€150
Horizontal Enterprise Supports	Multiple supports		Airports and Airlines	**c.€267**
TOTAL				€521.20

Source: Department of Transport, Oireachtas 2021.

The Covid-19 Regional State Airports Programme 2021

Similar to the Regional Airports Programme, the Covid-19 Regional State Airports Programme 2021 aims to support eligible airports (Cork and Shannon) to maintain compliance with the EU's safety and security related obligations as the sector recovers from the effects of the Covid-19 outbreak and also supports sustainability objectives such as building resilience against the likely impacts of climate change. Regional State airports with annual passenger traffic of between 1 million and 3 million annual passengers are eligible for the one-year programme, qualifying Cork and Shannon airports for the schemes. The programme has been designed in line with State aid rules, namely the EU's General Block Exemption Regulation (GBER) which limits the level of state aid afforded to airports for "economic" projects or activities (i.e. those that earn economic return). The programme funds economic projects prioritising those relating to safety and security which earn monetary return under their capital schemes (CAPEX scheme) and also awards airports support for non-economic investment and activities under their Public Policy Remit (PPR-C) and Public Policy Remit Operational (PPR-O) schemes. Non-economic activities may include activities relating to air traffic control, police, customs, security and fire services. €32.1 million has been allocated to Cork and Shannon Airports under the programme: €16.5m is allocated to projects under the capital schemes (Capital Expenditure (CAPEX) and Public Policy Remit (PPR-C) and €15.6 million is allocated to support operational activities (Public Policy Remit Operational (PPR-O)).[3]

Covid-19 Supplementary Supports Schemes for Irish Airports

The scheme provides direct grants to compensate air operators for damages caused directly by Covid-19 restrictions. The scheme is subject to the EU Temporary Framework (TFEU) for State Aid. It was approved by the EU Commission on the 24th of February 2021. The TFEU is a framework in place for EU state members to ensure that support qualifying as state aid awarded to businesses is compatible with the needs of the Single Market and ensures that competition is protected.[4] There are three measures available to air operators under this scheme: a Damages Measure and two measures under the Temporary Framework for State Aid Measures to Support the Economy in the Current Covid-19 Outbreak, namely measures 3.1 (direct grant up to €1.8 million) and measure 3.12 (uncovered fixed costs).

The damages measure, with a budget of €20 million, is aimed at air operators that deliver international connectivity and handle more than 1m annual passengers qualifying Dublin, Cork and Shannon airports.[5] This measure compensates eligible airports for damage that is directly linked to the Covid-19 outbreak and suffered as a direct effect of the containment measures adopted by the Irish Government in the period 1 April to 30 June 2020. The damages scheme to state airports was awarded to provide airports with the flexibility to roll out route incentives and competitive rebate charges, in consultation with airlines, with a view to supporting recovery and growth of connectivity. The calculation is based on the reduction in operating profit (measured as earnings before interest and taxation (EBIT)) in the three-month period specified compared to the corresponding period in 2019.

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[3] Cork and Shannon can apply for up to 100% of funding for projects which fall under the PPR-O Scheme, up to 90% for projects which fall under the PPR-C Scheme and they can apply for up to 50% funding for projects under CAPEX.

[4] During 2020 and 2021, key changes were made to the TFEU which expanded the scale and scope of the state aid which could be awarded by EU countries to enterprise to help aid post-pandemic recovery. See https://ec.europa.eu/competition-policy/state-aid/coronavirus/temporary-framework_en for more detail on these changes.

[5] Annual average over the two preceding financial years, 2018 and 2019.

To date, State airports have received: Dublin €17.68 million, Cork €1.4 million and Shannon €0.92 million. The level of aid given to beneficiaries under this measure was awarded proportionally based on passenger numbers in 2019 (Department of Transport, 2021). €6 million is available to regional airports (Ireland West Airport Knock, Kerry and Donegal) under Measures 3.1 and 3.12. Under Measure 3.1 direct grants are payable to eligible airports (subject to a cap of €1.8 million) to compensate for the variance in EBIT between 2019 and 2020, over the period 1 March and 31 December in each year. Regional airports have received: Ireland West Airport Knock €1.8 million, Kerry €0.91 million and Donegal €0.14 million. Measure 3.12 allows for aid to be provided in respect of uncovered fixed costs incurred by airports during the period between 1 March 2020 and 31 December 2021. This measure is being administered in two phases. Phase 1, which covers airports uncovered fixed costs for the period 1 March 2020 to 31 December 2020 is complete. Ireland West Airport Knock has received €0.13 million. Kerry and Donegal airports were not eligible under Phase 1, due to a positive 'Profit after tax and other sources of funding' in the specified period for 2020. Phase 2 of this measure, which will cover airports uncovered fixed costs for the period 1 January 2021 to 31 December 2021 will be administered in tandem with the PPR-O Scheme under the Regional Airports Programme and payments will be issued to airports in December.

Shannon Hold Baggage Screening Capital Project

In June 2020, €6.1 million in emergency state funding in the form of a direct grant was awarded to Shannon Airport to help complete the €12 million Hold Baggage Screening capital project which had been halted due to the onset of the pandemic. This allowed for business continuity of service by the airport operator. Shannon Airport received €304,000 in 2020 and will receive the balance of funding in 2021 as the project is finalised (Shannon Group, 2021).

Pandemic Stabilisation and Recovery Fund (PSRF)

Supports in the form of commercial rate loans and debt facilities were accessed by aviation sector businesses through the Pandemic Stabilisation and Recovery Fund (PSRF). A €2 billion PSRF was established by the Ireland Strategic Investment Fund (ISIF) in May 2020.[6] The PSRF aims to enable otherwise viable medium to large enterprises that are experiencing liquidity issues or have had trading negatively impacted by Covid-19 to sustain themselves in the short-medium term. The fund has the flexibility to invest across the capital structure using a range of instruments from equity to debt and hybrid instruments. To date the PSRF has committed to providing commercial debt investments to Aer Lingus and participated in a daa PLC bond issue. daa PLC (Dublin and Cork Airport) raised €500 million in long-term debt via the bond market to aid liquidity.[7] Participation of €40 million in the €500 million bond issuance was realised by ISIF via the PSRF (Ireland Strategic Investment Fund, 2021). €150 million has been made available to Aer Lingus with €75 million of the funding drawn down to date. The scheme's availability has been extended until 31 December 2021. To be eligible for this support businesses must have more than 250 employees or have an annual turnover greater than €50 million.

[6] ISIF is a flexible, long-term, sovereign investment partner which holds a unique mandate to invest on a commercial basis in a manner designed to support economic activity and employment in Ireland. ISIF is controlled and managed by the National Treasury Management Agency (NTMA) which is a State body operating with a commercial remit to provide asset and liability management services to Government.

[7] In October 2020, daa issued a €500 million Eurobond on Euronext repayable in November 2032. In September 2021, daa finance PLC tapped €150 million of a €400 million 2028 Eurobond sold in June 2016.

Horizontal Supports

A range of supports for businesses were put in place early during the onset of the pandemic to offset the negative effects of the virus, which the aviation sector could also avail of. It is estimated that by end-June 2021, the aviation sector will have received approximately €267 million in horizontal supports (Department of Transport, 2021). Supports included the Temporary Covid-19 Wage Subsidy Scheme (TWSS), the Employment Wage Subsidy Scheme (EWSS) and the waiving of commercial rates. These schemes are non-reimbursable. The €267 million figure reported is an estimate.[8] It does not include, however, other horizontal supports drawn down by the sector such as tax deferrals, the Covid Restrictions Support Scheme (CRSS), the credit guarantee scheme and the Strategic Banking Corporation of Ireland's (SBCI) Working Capital Scheme (Seanad Éireann debate, 2021). Of this €267m a considerable proportion of it is attributed to income supports (TWSS and EWSS).[9] The EWSS remains in effect until 30 April 2021. Other horizontal supports availed of by businesses in this sector have also been extended such as the CRSS and the Commercial Rates waiver scheme which have been extended until 31 December and 30 September 2021 respectively.

As part of the national recovery plan, further horizontal supports will be made available to enterprises in particular for businesses in sectors for which easing restrictions will be slower, such as restrictions around international travel (Economic Recovery Plan, 2021). These supports include the Business Resumption Support Scheme (BRSS) and the Covid-19 Deferred Payment Scheme.[10]

4. State Supports to Aviation Sector – International Developments

This section compares the latest developments in international fiscal measures made available to the aviation sector in response to the Covid-19 pandemic for a sample of countries: the UK, Germany, Spain, France, Italy, Sweden, the Netherlands, Finland and Greece.[11] The countries selected for comparison were selected as they are European countries which have similarly experienced multiple waves of the virus, as Ireland has, and are similarly subject to European Union Temporary Framework (TFEU) for State Aid which regulates state support of aviation enterprises. Furthermore, tourism plays an important role in the economies of Spain and Greece similar to Ireland. The supports outlined in this section present airline, airport or air traffic control/ground operator specific supports by country. Non-specific or enterprise wide supports (horizontal supports) offered by countries which airlines and airports can avail of are not included in detail in this section as information on the scale and scope of the use of these generalist enterprise supports by aviation enterprises in each country are largely

[8] This estimate was provided by the Department of Transport and is calculated using data submissions from commercial entities on public sector funding.

[9] The Temporary Covid-19 Wage Subsidy Scheme (TWSS) operated from 26 March 2020 to 31 August 2020 and was replaced in September 2020 by the Employment Wage Subsidy Scheme (EWSS). Under these schemes, the government provided support to employers negatively affected by the pandemic allowing them to support employees and keep them on the payroll throughout the pandemic.

[10] The BRSS will allow enterprises with a turnover reduction of 75% over the period 1 September 2020 to 31 August 2021 compared with 2019 to claim to an Advance Credit for Trading Expenses (ACTE) payment (Revenue, 2021). The Covid-19 Deferred Payment scheme aims to aid businesses which will face significant additional statutory redundancy costs. Details of this scheme are to be decided on by government in conjunction with unions (Revenue, 2021).

[11] Information on the supports outlined in this section are largely sourced from OECD (2021). Finer detail of these supports were sourced through individual government publications and websites.

unavailable.[12] The state support measures analysed in this section have been grouped into four main categories to compare between countries:

1. Loans
    a. Non-Commercial Rate and State Guaranteed Loans
    b. Commercial Rate Loans
2. Recapitalisation and Capital supports
3. Grants
4. Tax Measures

Germany and France have awarded the most financial support to their aviation sectors in absolute terms. However, Finland has awarded the most in terms of support as a percentage of 2019 Gross Domestic Product (GDP) at 0.66 per cent. Table 8 shows the distribution of spending on aviation supports by type of support across countries. As a percentage of modified Gross National Income (GNI*) in 2019, Ireland has provided 0.12 per cent in support to the aviation sector.

Table 8: Distribution of Fiscal Measures by Country by Type of Support March 2020 – June 2021 €m

Country	Non-Commercial Rate/State Guaranteed Loans	Commercial Rate Loans	Recapitalisation /Capital measures	Tax Measures	Grants	Total	% GDP in 2019[5]
Finland	€984		€535		€68	€1,587	0.66%
France[1]	€4,080		€4,000	€57		€8,137	0.33%
Germany[2]	€4,303	€3,100	€7,250		€352	€15,005	0.43%
Greece					€120	€120	0.07%
Ireland		€190			€64	€254	0.12%*
Italy					€310	€310	0.02%
Netherlands	€3,403					€3,403	0.42%
Spain	€1,678					€1,678	0.13%
Sweden[3]			€490		€98	€588	0.12%
UK[4]	€6,084				€102	€6,186	0.24%

1. France has an Aeronautical Tax Deferral Support of an undisclosed amount. 2. Germany has a Tax Deferral Scheme of an undisclosed amount. 3. Exchange rate used to compare support: £1 = €1.17 14 Sep UTC 4. 1 SEK = € 0.098 as at 14 Sep UTC 5. Eurostat Gross domestic product at market prices for 2019 is used to calculate support as a percentage of GDP and CSO Modified Gross National Income at Current Market Prices for 2019 is used for Ireland.

Source: OECD, European Commission, Gov.uk

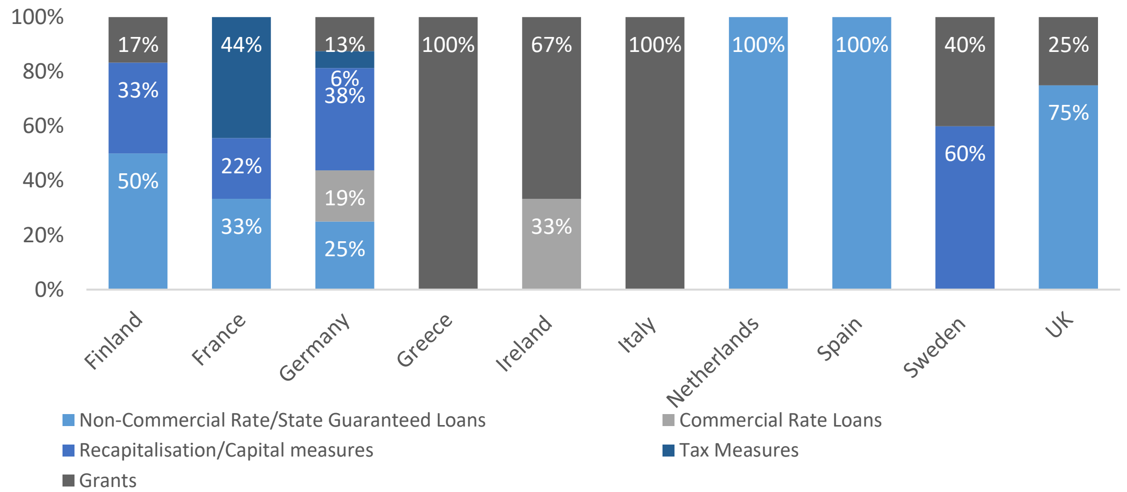
Reimbursable support measures (loans and recapitalisation measures) make up the largest percentage of total support measures for the majority of the countries included in the sample; Finland (96%, €1.52 billion), France (99%, €8.08bn), Ireland (75%, €190 million), the Netherlands (100%, €3.4 billion), Spain (100%, €1.68 billion), Sweden (83%, €490 million) and the UK (98%, €6.08 billion). Loans as instruments for state aid have been widely used across countries to provide businesses with support to address their specific liquidity and financing needs and address cash flow issues. Loans may require servicing and in some cases, the repayment of additional interest and adherence to further loan conditions which may potentially limit the operational and financial flexibility with which these businesses can respond to changing economic conditions during recovery post-pandemic. Recapitalisation and capital measures are measures which alter the capital structure of a firm and can be used to offer airlines liquidity support in a form which does not impact the leveraging of the

[12] An exception to this are the loans afforded to airlines in the UK under generalist enterprise schemes.

company or the balance sheet. Recapitalisation and capital supports awarded by countries to their aviation sectors have included: capital injections, and convertible and non-convertible equity instruments. In contrast, non-reimbursable measures (grants and tax measures) make up a small portion of most country's support measures, with Italy and Greece being exceptions. Italy and Greece are unique in that grants are the only form of support they have awarded to the aviation sector.

Analysing the number of state support measures awarded to the aviation sector in each country by type, the majority of supports offered are reimbursable supports such as loans and recapitalisation measures. Reimbursable supports make up 56% (5) of the support measures awarded to the sector by France, 83% (5) in Finland, 81% (13) of support measures in Germany, 100% (3) in the Netherlands, 100% (6) in Spain, 60% (3) in Sweden and 75% (6) in the UK. In contrast, aviation sector enterprises in Ireland, Greece and Italy have received more non-reimbursable supports: Ireland (67%, 4), Greece (100%, 1) and Italy (100%, 4). Of the countries analysed, the majority of loans offered to airlines and airports are loans given under favourable conditions such as non-commercial rate (low interest rate) and state guaranteed loans. Italy and Greece notably do not offer loans as a form of support to airlines or airports, neither commercial nor non-commercial. Ireland and Germany have given airlines and airports in their aviation sectors commercial rate loans. The German airline and travel company TUI AG has received 3 loans from the KfW, the German state-owned investment and development bank, to the amount of €3.1 billion in a revolving credit facility. In Ireland, the only loan type support available to airlines and airports is a commercial loan available under the Pandemic Stabilisation and Recovery Fund (PSRF) by the Irish Strategic Investment Fund (ISIF). To date only one airline, the national airline Aer Lingus and one airport (daa PLC) have availed of this loan type support measure to the value of €150 million and €40 million respectively. However, as noted above horizontal supports are not considered in this cross-country comparison.

Figure 4: Distribution of Support Measures by Count of Measures by Country by Type



Source: OECD, European Commission, Gov.uk

Of the countries analysed only France and Germany have opted to offer recapitalisation supports to airlines.[13] France awarded Air France a capital injection of €1 billion as part of a wider recapitalisation package of €4 billion. France awarded Air France a recapitalisation package which will almost double the French government's holdings in the airline group from 14.3% to 28.6% (voting rights 28.5%) (Air

[13] It should be noted that Italy are currently working on a recapitalisation package worth up to €3 billion for their national airline and flag carrier Alitalia which would bring it under ownership of a new state company.

France KLM, 2021). Germany has offered Lufthansa and TUI AG recapitalisation packages. Lufthansa's package will see German state holdings in Lufthansa increase by 20% through the Economic Stabilisation Fund offered by the German state bank Wirtschaftsstabilisierungsfonds (WSF). Bond call options under TUI AG's capital support could allow the WSF to increase their equity to 25% plus one share in certain circumstances (OECD, 2021). These recapitalisation packages, designed in line with the TFEU, are offered with governance, competition and reporting measures attached.[14] Industry consultants KPMG (2021) warn that such stringent conditions placed on these firms as part of bail out measures, may potentially have consequences for the airlines' operational and financial flexibility (KPMG, 2021). Sweden awarded SAS a recapitalisation package to the tune of €486 million increasing Sweden's holdings in the firm from 14.8% to 21.8% (sasgroup, 2021). Finnair has also been awarded equity investment of €286.1 million.

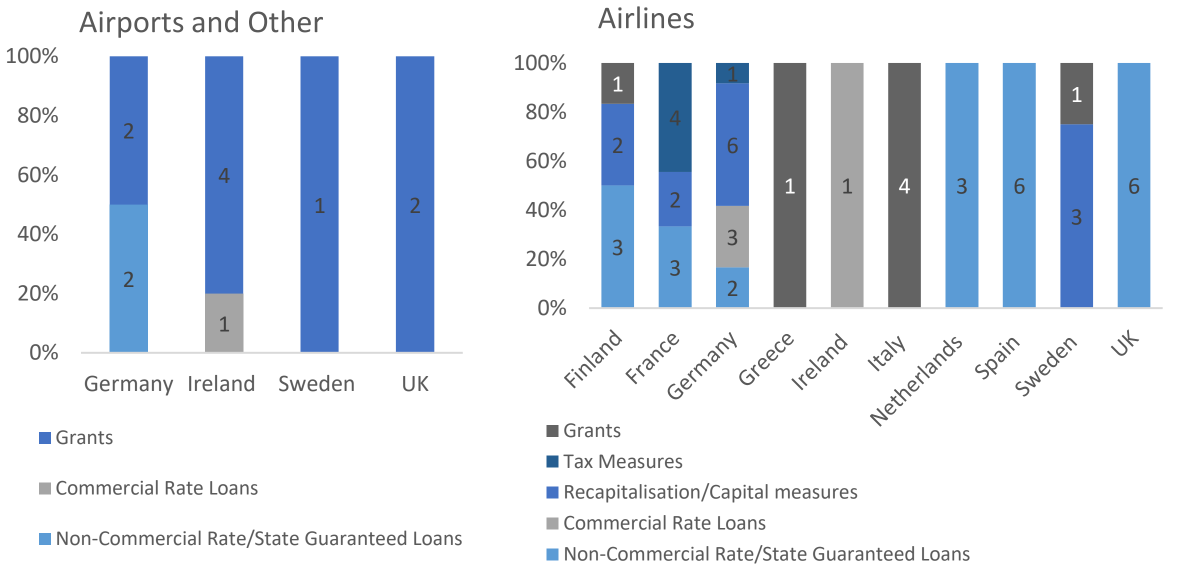
All countries apart from France, the Netherlands and Spain offer some form of grant support to their aviation sector. Direct grants for damages compensation are the only form of support offered by Greece and Italy to their aviation sectors. Greece have awarded €120 million to national airline Aegean Airlines and Italy has awarded a total of €311 million to national airline Alitalia in direct grants. Italy and Greece are unique in that grants are the only form of support they have awarded to the aviation sector. For the UK, Germany and Ireland the majority of grants are offered to airports rather than airlines of national interest. This is in contrast to the other support measures which are mainly offered to airlines of interest. The UK has set aside £65 million for airport operators under their Airport and Ground Operators Scheme (gov.uk, 2021). Germany gave grants of €98.8 million and €253 million to Berlin Brandenburg and Munich Airports respectively to compensate them for income as a result of the Covid-19 Pandemic between March 4th and June 30th 2020. Sweden granted regional airports and the state-owned air traffic controllers LFV Group damages compensation to the tune of €9.8m and €88.2m respectively. Finland granted Finavia €68 million in damages compensation. Ireland similarly has awarded regional and state airports damages compensation in the form of direct grants to the value of €26 million in total. Ireland granted a further €32.1 million to State airports in direct grants for capital and operation projects. France and Germany are the only countries which have offered sector specific tax measures. These tax measures are directed exclusively at airlines. France offered Corsair, a national airline of state interest, further tax credits (€35 million) and deferrals (€21.9 million) as part of a wider suite of measures offered by France to the airline under recapitalisation packages.

Of the support that has been awarded to the aviation sector in each country, airlines have been awarded the most support internationally across countries analysed. Figures 5 and 6 display the distribution of support measures awarded to airlines and airports and air traffic operators by number of measures received. It demonstrates that all countries in the sample have awarded support of some form to airlines. Of note, Finland, France, Greece, Italy, the Netherlands and Spain have not awarded support to airports or air traffic operators and the majority of the support measures for the aviation sector in Sweden, the UK and Germany are supports for airlines. 75% (6) of UK supports, 80% (4) of Sweden's supports and 75% (12) of Germany's supports were awarded to airlines. Of support types awarded by Italy and Greece, 100% are grants to airlines. The most popular form of support for airlines across countries are reimbursable supports such as loans and recapitalisation measures. Finland, France, Germany, Spain, Sweden, the Netherlands and the UK have notably offered loans to specific airlines of national interest. These loans are offered under favourable conditions with low-interest

[14] The conditions include limitations on dividend payments, relinquishing of air slot holdings at particular airports and bans on acquiring of enterprises in related industries by the firm in question until the measures have been reimbursed in full or in part.

rates or state guarantees. Finland, Sweden, France, Spain, the Netherlands and the UK have offered favourable loans to their largest national airline carriers: Finnair, SAS Scandinavia, Air France, Iberia, KLM Royal Dutch Airlines and British Airways.[15] France and Germany have offered favourable loans to national airlines of Air France and Condor respectively which include specific governance, competition and environmental conditions. In contrast, the UK, who are not subject to the EU Temporary Framework measures, have offered favourable loans to large national and non-national airlines, including Ryanair and Wizzair, with low interest rates which do not have social or environmental conditions attached to them. Non-commercial rate loans and state guarantees are the only form of support awarded to the aviation sector by Netherlands and Spain, €3.4 billion and €1.67 billion respectively. Similar to loan support, recapitalisation measures have been awarded to national airlines of state interest. This is in direct contrast to the distribution of supports in Ireland.

Figures 5 and 6: Number of Support Measures for Airlines and Airports and Air Traffic Control/ Ground Operators by Type of Support March 2020 – June 2021



Source: OECD, European Commission, Gov.uk

The majority of support offered to the Irish aviation sector is available to airports (83%, 5), while just 17% (1) is available to airlines. The majority of the support to airports is given in the form of non-reimbursable supports. 80% (4) of support measures offered to airports in Ireland are in the form of non-reimbursable measures. One of these supports, the €20 million damages compensation measure awarded under Covid Supplementary Supports Schemes for Irish Airports Scheme, was given to airports with the view that they could roll out route incentives and competitive rebate charges, in consultation with airlines, to support recovery and growth of connectivity. In Germany, 50% (2) of support measures offered to airports are in the form of grants. The UK offers 1 support measure to airports and 1 support measure to air traffic control operators in the form of grants. Sweden offered a non-reimbursable capital injection to the state-owned air traffic control LFV Group. However, it should be noted that Irish airports remain largely public sector enterprises in contrast to the rest of Europe were a higher level of airport privatisation has occurred (Frontier Economics, 2019). In addition, Irish airlines such as Ryanair and Aer Lingus were in a relatively stronger financial position

[15] See Annex 1 for national links of the airlines which were awarded supports in this section. Air France which was previously 14.3% French state owned pre-pandemic was offered €7 billion in loans in total (Shareholding structure, 2021). Condor, whose current ownership is held by aholding company backed by the German state-owned KfW financial institution, was offered €550 million in loans by the German government (Reuters, 2021).

prior to Covid-19 in terms of both revenue and profit streams (See Box 1). In terms of loan supports to airports, Ireland and Germany are the only countries to have offered loans to airports. Airports offered loans are either fully or partially State owned.[16] However, the loan available to daa PLC (Dublin and Cork Airports) is a commercial rate loan while Germany has offered a Berlin Airport a low interest rate loan. Ireland and Germany are the only countries to offer loans to airports. These airports are either fully or partially State owned. German offered Berlin Airport low interest loans amounting to €553.2 million. Ireland has not awarded airlines or airports favourable term loans. Aer Lingus is the only airline to have received support in Ireland. It was granted a non-sector specific commercial rate loan of €150 million.

5. Looking Forward

This section examines the aviation sector's prospects for recovery.

Section 5 Key Points:

- Based on a Eurocontrol forecast in October 2021, the most likely scenario for Ireland would see a return to 2019 levels of air traffic in 2025.
- Positive factors for recovery include: Vaccination, European Digital Covid Certificate, pent up demand for leisure and visiting friends and relatives (VFR) travel, unwinding of savings, travel between Ireland and the UK.
- Negative factors for recovery include: Some trepidation around travel, economic and financial uncertainty, emerging variants.
- Further supports may be required for the aviation sector going forward.

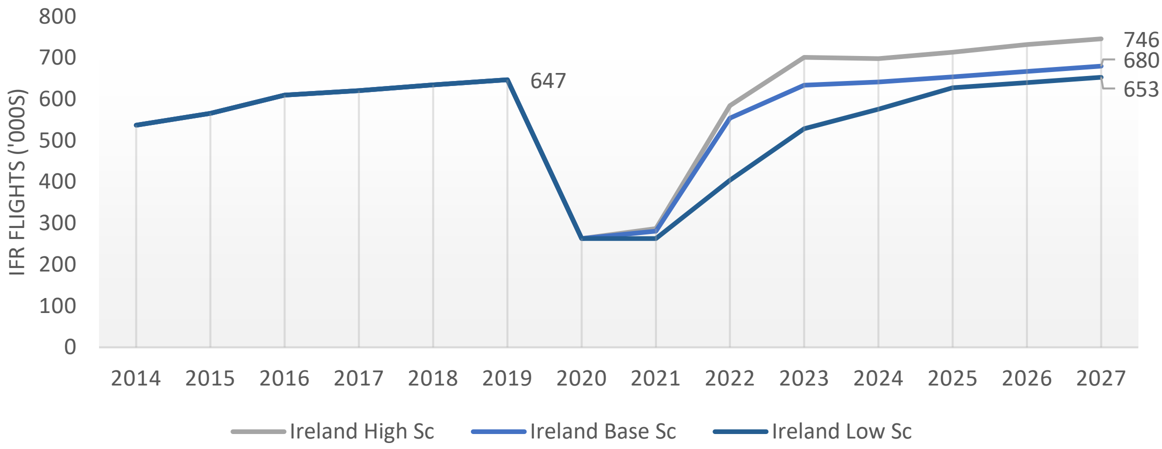
5.1 Prospects for Recovery

Eurocontrol's forecast update 2021 – 2027, published in October 2021, was based on three different scenarios. The High Scenario is the best-case scenario, including low levels of travel restriction. This scenario showed a recovery of 2019 levels of air traffic in mid-2023. The Base Scenario was the next best-case scenario, including limited travel restriction, the forecast in this scenario showed a recovery of 2019 levels of air traffic by the end of 2023. The final scenario, the Low Scenario, was the most pessimistic. Under this scenario, vaccines would be ineffective against new variants and vaccine uptake would be poor, resulting in strong travel restrictions. The forecast based on this scenario showed a recovery of 2019 levels of air traffic after 2027 (Eurocontrol, 2021a). Further details on each of these scenarios can be seen in Annex 2. In the Irish context, Figure 7 shows Ireland's potential recoveries through the lens of Eurocontrol's three scenarios, which is based on IFR (Instrument Flight Rules) movements, a measurement of, air traffic levels.[17] Under the High Scenario, in 2025 Ireland would have 110 per cent of the air traffic it had in 2019. Under the Base Scenario (most likely), in 2025 Ireland would have 101 per cent of the air traffic it had in 2019. Under the Low Scenario, in 2025 Ireland would have 97 per cent of the air traffic it had in 2019.

[16] The Berlin Brandenburg was offered a low interest loan of €753m by the German State. The Federal Republic of Germany had a pre-Covid-19 stake of 26% in the airport (Berlin Airport, 2021). The Irish daa PLC (Dublin and Cork airports) was awarded a loan of €40m. The DAA PLC is a state owned enterprise.

[17] IFR movements can be divided into internals (a flight which takes off and lands in the same airspace), arrivals, departures and overflights (a flight which passes through airspace but neither takes off or lands).

Figure 7: Ireland's recovery based on Eurocontrol's three scenarios



Source: Eurocontrol

5.2 Factors effecting recovery

As outlined in Table 9, there are a number of factors which could have a positive or negative impact on recovery in the sector.

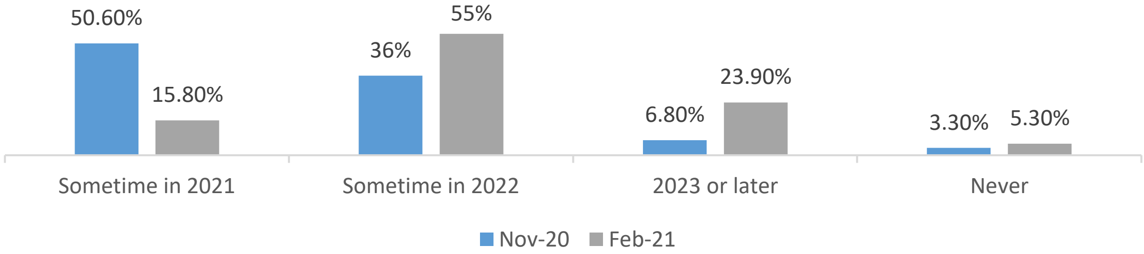
Table 9: At a glance: Factors and potential effects on recovery

Factor	Potential Effect
Vaccination levels continuing to rise worldwide	Positive
EUDCC	Positive
Pent up demand	Positive
Unwinding of savings	Positive
Safety measures	Positive
UK-Ireland Travel	Positive
Lack of confidence/optimism in overseas travel	Negative
Economic and financial uncertainty	Negative
Emerging variants	Negative

As vaccination continues worldwide, it will make air travel whilst living with Covid-19 safer and provide consumers with renewed confidence. As of mid-November 2021, 51.3 per cent of the world's population had received at least one dose of a Covid-19 vaccine (Our World in Data, 2021), 81.2 per cent of adults in the EU/EEA had received at least one dose and 93.8 per cent of Irish adults had received at least one dose (European Centre for Disease Prevention and Control, 2021). In addition to this, the EU Digital Covid Certificate (EUDCC) became available on July 1st, 2021. The purpose of the EUDCC is to facilitate safe movement within the EU during the Covid-19 pandemic. An EUDCC provides digital proof that a person has been vaccinated against Covid-19, received a negative test result, or has recovered from Covid-19 (European Commission, 2021a).

As well as the successful rollout of vaccinations, it is likely that there is pent up demand for leisure and visiting friends and relatives (VFR) travel among consumers which, in combination with a strong economy worldwide and accumulated savings, should lead to a sharp rise in passenger revenues once restrictions are relaxed (IATA, 2021a). While there is pent up demand for travel there may be apprehension around air travel. Figure 8 shows the results of two sentiment surveys conducted by the CSO in November 2020 and February 2021. Between the two surveys the expectation of respondents that they would next take an international flight in 2021 dropped by 34.8 percentage points. Expectation of next taking a flight in 2022 and beyond grew significantly; there was also an increase in the percentage of those who believed they would never take an international flight again. This shows a decrease in confidence in air travel among consumers, however it should be noted that 70.8 per cent of respondents still expect to travel internationally in the next one to two years (CSO, 2021b).

Figure 8: Expectation of next international flight Nov 2020 v Feb 2021



Source: CSO[18]

As discussed in section 2, the top 5 routes in Irish airports are heavily UK dominated. Of the 9.2 million passengers handled in a top 5 route in one of the main Irish airports in 2019, 79 per cent travelled a UK route. Passengers who travelled on a top 5 UK route made up 19 per cent of all passengers handled by the main Irish airports in 2019. The UK routes are of increased importance to airports outside of Dublin airport. Passengers travelling on a top 5 UK route made up 40 per cent of all passengers handled in Cork, Shannon, Kerry, and Ireland West Airport Knock in 2019. As a result of this, if the UK and Ireland manage to control virus levels and reduce travel restrictions, there could be a significant increase in air travel even if travel to other countries is still restricted.

Business travel is likely to be the last to return with the successful advent of widespread teleworking worldwide resulting from the Covid-19 pandemic. As Table 10 shows, business travel does account for a significant portion of travel between GB and ROI by GB and ROI residents, however leisure and VFR travel makes up a higher portion of travellers. Table 10 also shows that overall business travel accounts for a smaller portion of residents and non-residents being handled in Irish airports than leisure and VFR travel does. As such, while the loss of business travel would be significant, at least a portion of it is likely to return as confidence in international travel returns and pent up leisure and VFR demand could potentially offset these losses. A travel intentions survey from April 2021 shows evidence of this, those intending to take an overseas trip in the next 12 months for business is 5 per cent, while those intending to travel overseas in the next 12 months for leisure and VFR is 58 per cent and 34 per cent respectively (CSO, 2021a).

Table 10: Travel by purpose for GB/ROI residents (2016) and ROI residents and non-residents (2019)

Purpose	Travel by GB/ROI residents 2016		Travel by ROI residents and non-residents 2019	
	GB residents – ROI %	ROI residents – GB %	Residents %	Non Residents %
Business	19	19	14	11
Leisure	36	25	48	65
VFR	40	44	25	22
Other	6	12	13	2

Source: ONS and CSO

Emerging virus variants and subsequent uncertainty surrounding vaccine effectiveness could be a roadblock to a strong and continued return to air travel. There has been some preliminary evidence

[18] 3.3% of respondents in the Nov 2020 Survey intended to travel in the next two months at the time of survey.

that some new variants may be more transmissible. Recent evidence also suggests that there may be a decline in vaccine effectiveness against some of the currently circulating variants, although new vaccine formulations are in testing to improve efficacy against variants (IATA, 2021b).

There are also some factors specific to the Irish context, which may have a negative effect on recovery. As of mid-November 2021, Ireland still requires a negative polymerase chain reaction (PCR) test from travellers. In contrast with this, other European countries such as France, Germany, Italy and Spain are accepting rapid-antigenic testing, which provides results more quickly and is usually less expensive than PCR testing. Air traffic recovery to date has also been slow in Ireland, on Wednesday the 10th of November, air traffic in Ireland was -20p.p lower than the comparable date in 2019, this places Ireland in the middle (22nd) of the 41 Eurocontrol states in terms of air traffic recovery. With regards to airlines, Ryanair is placed first of all the airlines in the Eurocontrol network, with 19p.p higher air traffic on the 10th of November 2021 than on the comparable date in 2019, this is likely due to its large European network. Aer Lingus is performing at a level that puts it third from the bottom of the table with -53p.p lower air traffic on the 10th of November 2021 than on the comparable date in 2019 (Eurocontrol, 2021b). The United States has recently lifted their travel ban for fully vaccinated travellers; this has resulted in the recommencement of transatlantic flights and is likely to have a positive effect on the performance of Aer Lingus.

5.3 The Environmental Component

If the 2 degrees Celsius target agreed upon in the 2015 Paris Agreement is to be reached, climate policies will be required in all countries, across all sectors, including the aviation sector (Larsson et al, 2018). As such, reduction of emissions in the sector was already a priority prior to the Covid-19 pandemic. In light of this, long-term environmental commitments were made part of aid packages for both Air France and Lufthansa while Spain's package for its aviation sector requires recipients to commit to complying with the Paris Agreement and protecting biodiversity (OECD, 2021). Ireland's Action Plan for Aviation Emissions Reduction (Department of Transport, Tourism and Sport, 2019) found that CO_2 emitted by Irish airlines peaked in 2007 at 3082 kilo tonnes (kt), following a steady increase from 1996. In 2014, Irish airlines emitted 2251 kt of CO_2. While the acquisition of newer and more environmentally friendly aircraft by Irish airlines is expected to make an impact on the level of CO_2 emissions, without intervention it is expected that emissions from Irish airlines will grow significantly in the future. Environmental commitments have not been included as part of any of the Irish aid packages for airlines and airports.

5.4 Continued Support

As Ireland moves towards fully reopening and removing pandemic related restrictions, it is possible that continued horizontal supports may be required for the sectors most heavily affected by the Covid-19 pandemic, including the aviation sector, in order to support them going forward and put them in the best possible position for recovery. This was reflected in the Economic Recovery Plan published on June 1st (Department of the Taoiseach, 2021). The Regional Airports Programme (RAP) will continue to be used to support Ireland's regional airports. In 2021, Donegal, Knock and Kerry airports are eligible to apply for funding from the programme which has a budget of €21.3 million for the year (Department of Transport, 2021e). The Covid-19 Regional State Airports Programme was established for one year to support both Cork and Shannon airports; one of the stipulations of the programme is that aid cannot be granted to an airport with an average annual passenger traffic of more than three million in the preceding two years. As both Cork and Shannon Airports had less than three million passengers in 2019, they were eligible to benefit from schemes under this programme in 2021 (Department of Transport, 2021f). This programme has been given a budget of €32.1 million for 2021 (Department of Transport, 2021e). Under Budget 2022, Regional Airport Programme funding has been increased from €21 million to €36 million, €26 million in current and €10 million in capital, to facilitate the inclusion of both Cork and Shannon airports in the programme. A further €90 million will also be available to state airports (Dublin, Cork and Shannon) in the form of discount and rebate airline passenger charges to incentivise airlines to restore pre-Covid air routes. It will be distributed on a pro-rata basis to the airports based on 2019 passenger numbers.

6. Conclusion

Covid-19 has had a significant negative impact on the aviation sector. The number of passengers handled in the main airports (Dublin, Cork, Shannon, Ireland West Airport Knock and Kerry) fell to 8.3 million in 2020, a decline of 78 per cent on 2019 levels while the number of passengers handled by main airports in the first half of 2021 was down 94 per cent on the same period in 2019. The pandemic has also resulted in falls in employment in the sector. Reflecting the significant impact of Covid-19 on the aviation sector, the State has provided significant resources to support the sector. This paper examined the scale of supports put in place to support the aviation sector, to assess how these supports compare internationally in terms of type of support and funding level and discussed the future outlook for the sector.

To date €254 million has been provided in support to the aviation sector in the form of sector specific supports. The majority of this support, in terms of the number of supports provided, is in the form of non-reimbursable supports including direct grants (4 supports, €64 million). The sector has also been supported by the Pandemic Stabilisation and Recovery Fund (PSRF) with €190 million in commercial rate loans and debt facilities provided. The majority of this, €150 million, has been provided to Aer Lingus in the form of a debt facility and €40 million has been provided to Dublin Airport Authority (daa) PLC in the form of bond issues. In addition, the sector has also benefited from an estimated €267 million in horizontal or non-sector specific business supports including the wage subsidy schemes.

In contrast to many other European countries included in this analysis, in terms of the number of supports provided, Irish support to the sector tends to focus more on support for airports rather than airlines. Of the countries considered in the analysis, reimbursable supports (loans and recapitalisation/capital measures) make up the majority of support measures by total number of supports awarded to the sector for all countries excluding Ireland, Greece and Italy. Excluding Ireland, airlines have been awarded the most support by countries considered as part of this analysis. Of the supports offered to airlines, loans and recapitalisation measures are the most common form of support offered by countries. Of loans offered to airlines, the large majority are favourable term loans. In contrast, Ireland has afforded aviation enterprises a considerable number of non-reimbursable supports in the form of grants. Loans only make up 33 per cent (2 supports) of the support measures offered in Ireland where grants account for the largest number of supports (67 per cent, 4 supports). Loans offered to airlines and airports by Ireland are notably commercial rate loans.

Looking forward, forecasts indicate that Irish air traffic levels are likely to recover to 2019 levels by 2025. The rate of recovery of the sector is likely to be positively impacted by factors such as increasing vaccination levels as well as pent up consumer demand for foreign travel and the unwinding of pandemic related savings. Negative factors such as financial uncertainty and emerging Covid-19 variants could also have impacts on the rate of recovery. Furthermore, recovery will also have to take place in the context of structural changes in the sector with continued investment in environmentally friendly business practices required in order to lower emissions in line with the Paris Agreement 2015. In addition to this, it is not yet clear what impact increased remote working may have on business related travel. It will also be important to focus on whether there is a 'twin-track' recovery in the Irish aviation sector, with Dublin airport recovering strongly and regional airports less strongly. In the short term to continue to support the sector, it may be necessary for access to horizontal business supports to continue in 2022. Additional future funding may also be required under the Regional Airports Programme, particularly Cork and Shannon Airport. Under Budget 2022, funding to this programme has increased to €36 million to support the temporary inclusion of Cork and Shannon airports in 2022.

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8. Annexes

8.1 Annex 1

Table 16: Overview of Airlines included in the International Comparison of Measures by Country

Country	Airline	National airline/Headquartered Nationally	Flag carrier airline
Finland	Finnair	Yes- national carrier of Finland and majority-owned by the Finnish government (55.9%)	
France	Air France	Yes - Previously 14.3% French state owned pre-pandemic	Previous
	Corsair	Yes	
Germany	TUI AG	Yes	
	Condor	Yes- Current ownership by a holding company backed by the state-owned KfW financial institution after receiving €380m in loans in 2019 after liquidation of former owner Thomas Cook Group.	
	Luftansa	Yes - largest airline in Germany	Previous
Greece	Aegean Airlines	Yes	Yes
Ireland	Aer Lingus	Yes	Previous - Shamrock replaced flag in 1958
Italy	Alitalia	Yes	
The Netherlands	KLM	Yes	
Spain	Iberia	Yes	Previous
	Air Europa	Yes- third largest Spanish airline by destinations serviced	
	Vueling	Yes- second largest Spanish airline by destinations serviced and special relevance in the Spanish domestic market	
	Plus Ultra	Yes- Spanish long-haul carrier which connects Spain with Ecuador, Peru and Venezuela	
Sweden	SAS	Yes	
UK	British Airways	Yes	Yes
	easyJet	Yes - second largest British airline by destinations serviced	
	Ryanair	No	
	Wizz Air	No	

Source: CAPA -Centre for Aviation, worlddata.info and IAG Brand Profiles

8.2 Annex 2

Table 17: Eurocontrol's Covid-19 Recovery Scenarios

	High Scenario	Base Scenario	Low Scenario
	Recovery to 2019 level in mid-2023	Recovery to 2019 level by end 2023	Recovery to 2019 level after 2027
Epidemiology	•Efficient vaccination campaign within Europe and globally •Reliable vaccine (also against variants) •Effective test-trace-isolate programme	•Vaccine roll-out reaching herd immunity levels within Europe •Reliable vaccine (also against variants) •Effective test-trace-isolate programme	•Patchy uptake of vaccine •Need of updated vaccines •Frequent reintroduction of lockdowns and mask mandates
Specific Impact on Aviation	•Less travel restriction Coordinated interregional approach • North-Atlantic flows restarting during November 2021 • Asia-Pacific/India Q2 2022, Middle-East Q4 2021, Australia flows Q3 2022 • Good passenger confidence • Savings glut/Pent-up demand • Faster bounce-back of business travel • Airports well able to bring back capacity	•Limited travel restriction • Coordinated European approach • North-Atlantic flows restarting during November 2021 • Asia-Pacific/India Q3 2022, Middle-East Q1 2022, Australia flows Q4 2022 • Relatively good passenger confidence • Savings glut/Pent-up demand • Business travel return to pre-COVID19 levels in 2023 • Airports well able to bring back capacity	•Strong travel restriction • Coordinated European approach • Long-haul flows restarting as of end 2022 • Demand is bouncing back for 60-70% of travellers but reluctance to fly for rest; Permanent drop in propensity to fly; Growing environmental constraint • Airport difficulties to operate as pre-COVID

Source: eurocontrol.int

Quality Assurance process

To ensure accuracy and methodological rigour, the author engaged in the following quality assurance process.

- ✓ Internal/Departmental
  - ✓ Line management
  - ✓ Spending Review Steering group
  - ✓ Other divisions/sections
  - ☐ Peer review (IGEES network, seminars, conferences etc.)

- ✓ External
  - ✓ Other Government Department
  - ☐ Other Steering group
  - ☐ Quality Assurance Group (QAG)
  - ☐ Peer review (IGEES network, seminars, conferences etc.)
  - ☐ External expert(s)

- ☐ Other (relevant details)

An Roinn Caiteachais
Phoiblí agus Athchóirithe
Department of Public
Expenditure and Reform

Tithe an Rialtas. Sráid Mhuirfean Uacht,
Baile Átha Cliath 2, D02 R583, Éire
Government Buildings, Upper Merrion Street,
Dublin 2, D02 R583, Ireland

T:+353 1 676 7571
@IRLDeptPer
www.per.gov.ie