DublinAirport

Regulatory Proposition

FOR THE PERIOD

23 → 26

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Disclosure

The Dublin Airport Regulatory Proposition for 2023-2026 has been compiled with the principles of regulation in mind, it is a good faith commercial document. If there are inconsistencies between this proposition and previous regulatory submissions relating to matters of regulatory policy, then those submissions take primacy. In developing the Dublin Airport Regulatory Proposition for 2023-2026, we have taken an approach to assurance which is both comprehensive and appropriate. However, given the inherent uncertainties that the aviation industry is currently facing, it is likely that material updates will be necessary throughout 2022. Dublin Airport will not accept or assume any responsibility or liability for the accuracy or correctness of the information or of any figures provided, calculations or any assumptions that may be drawn from them.

Executive SUMMARY

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Foreword

By Dalton Philips, CEO

In 2019, Dublin Airport reported record passenger traffic, record profitability and record low levels of net debt. The airport was experiencing severe capacity constraints across multiple facilities and a record level of capital investment (€2 billion) was proposed and broadly supported by airport users. This considerable investment was underpinned by a balanced commitment to keep the already low airport changes flat for the next five years.

Unfortunately, it is now evident that the assumptions considered reasonable in 2019, that underpinned the regulatory Determination, are now proving to be overly optimistic. Regrettably, Dublin Airport entered the pandemic with unsustainably low airport charges, reduced allowed earnings and limited financial headroom to withstand downside risks or external shocks.

Dublin Airport is now experiencing its third year of pandemic related commercial and financial damage. This is exacerbated by the pre-pandemic price control that is still in place (which was designed for over 35 million passengers per annum). The pandemic has inflicted profound and lasting damage to the regulated entity's finances. Despite implementing a vast programme of emergency mitigations, 66 million passengers, €900 million in revenue and over €500 million in earnings have been lost over the period 2020 – 2022. Net debt has doubled to a record high level of over €1 billion and the balance sheet is now materially impacted.

With travel restrictions lifting in key markets, demand recovery is thankfully well underway. The leisure sector is clearly benefiting from prolonged pent-up demand and traffic has been ahead of expectations over the recent holiday periods. Airline seat capacities are struggling to cater for demand to peak holiday destinations and airlines are likely to charge yield premiums over Summer 2019 to support higher fuel and staff costs. Caution is prudent for 2023 though. Traffic growth may well plateau next year, as pent-up demand subsides. It will likely be Autumn before the industry can best gauge the level of business traffic recovery.

The entire aviation value chain will experience service delivery challenges this Summer. Frontline functions reduced their coverage throughout 2020/1 and are now baseline resourced to only support a gradual recovery out to 2025, as opposed to a surge in holiday activity this Summer. COVID-19 has exposed certain gaps in overall airport resilience. Recent experiences have highlighted that passengers are generally expecting a swift return to pre-pandemic service levels. Unfortunately, it will take time, cost and additional human resources to improve standards from the current minimum levels in place.

We understand that the ideal template is to deliver a sustainable, unconstrained level of service at an affordable price. However, delivering a high-quality airport experience through an ultra-low passenger charge is an unsustainable permutation. Price competitiveness has always been at the core of Dublin Airport's business strategy, but a charging reset is now required

to allow the airport to appropriately invest in resilience, efficiency and to provide a good experience for passengers. We now face some real choices over the proposition we plan for over the next five to ten years. Difficult trade-offs are required in the parallel pursuit of growth, efficiency, sustainability and affordability. Post pandemic, the reality is that the 'value' proposition consumers and airlines require, cannot be delivered under the current artificially low price caps.

The airport's revised capital investment requirements remain significant at €2.5 billion, as the fundamental objective of delivering an annual capacity for 40 million passengers is still fit for purpose and supported by key customers. But time has been lost on delivering key infrastructure improvements and Dublin Airport's funding capability has been severely compromised.

Over €400 million additional investment is specifically required to meet the national carbon reduction targets by 2030. Record levels of capital expenditure are required for consecutive years from 2024-2026. The escalating net debt position over future years is driving a requirement for higher allowed annual earnings to maintain credit metrics as per the 2019 Determination and within adequate investment grade.

Europe's premier airports, such as Heathrow, Amsterdam and Paris need to increase their aeronautical changes to restore their depleted finances, fund infrastructure development and enhance service quality. These proposals are being endorsed by their supportive national regulators.

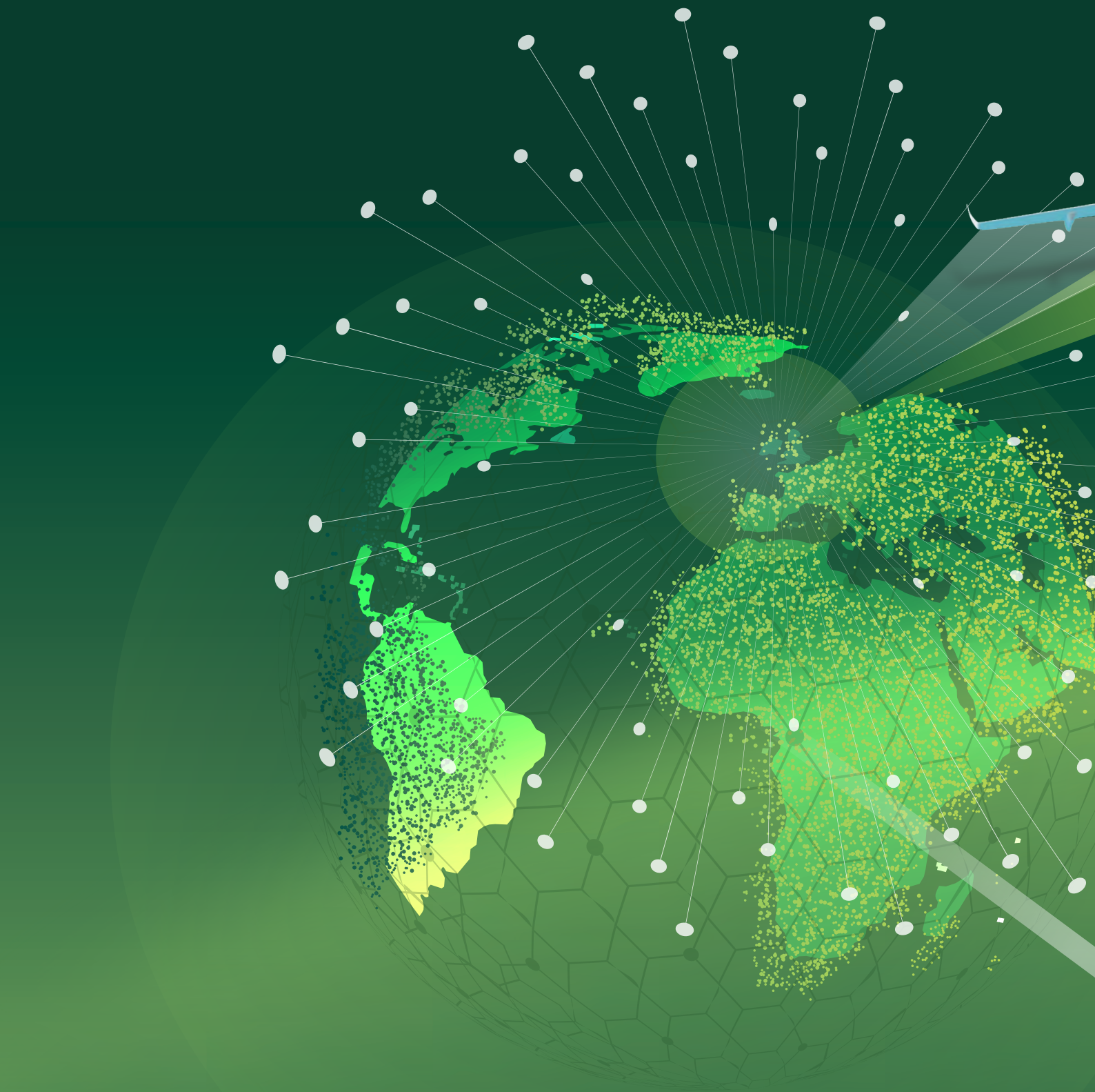
Industry risk has undoubtedly elevated under the strain of downside pressures and greater overall uncertainties. The World Health Organisation are flagging an imminent new wave of COVID-19 infection in Europe, with the pandemic likely to last for many years. A largescale military conflict is escalating on Europe's border. Soaring consumer price inflation and hyper construction inflation are hampering hard fought efficiency gains. Resource and skills shortages, reluctance to work unsociable hours, lengthy background checks and rising wage demands are driving unavoidable operating cost increases. The risk appetite and returns required by the market have increased for airport investment, which is clearly evident in the sustained elevation of publicly quoted airport asset betas.

With this regulatory decision, the Commission has a critical responsibility to enable the recovery of Ireland's gateway for the remainder of this decade. The current levels of airport charges cannot sustain the tide of countervailing pressures. Stakeholders need to appreciate and acknowledge that the price path for the remainder of this decade is in a higher range than today. The regulated entity requires a step-change in aeronautical charging for the immediate period, bearing in mind a 15% increase is required to merely restore the real charging position prevailing in 2019.

Dublin Airport has long been one of the most cost competitive large airports in Europe, offering value and service that many competitor gateways seek to emulate. Our commitment stands to maintain this unique value proposition for the tens of millions of guests who rely on Dublin Airport every year. To achieve this, the regulatory decision needs to be anchored in realism and not optimism on every dimension. The Commission will need to address Dublin Airport's future plans by appropriately accounting for the risks that the industry and the business will face for the next five years.

Dalton **Philips**
Chief Executive

DublinAirport



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our ROLE

As a small, open economy, Ireland is crucially dependent on its air links to facilitate its economy.

Dublin Airport therefore plays a vital role as a strategic enabler for business growth and economic development and is essential for numerous sectors including export, trade & tourisim

Mission

Dublin Airport is at the heart of Ireland's economic and social success. We aim to provide an international gateway to be proud of.

Vision

Dublin Airport's vision is to create a vibrant travel and business hub, where every experience is defined by ease and efficiency.

Dublin **Airport's**

Vision 2023 & Beyond

We are a service business, a people business and are all about experiences. Our reputation will be largely based on the experience we provide, whether that is to a passenger, an airline or a company doing business with us. As well as satisfaction with the various individual attributes of our service, the concept of 'ease' provides an additional layer/depth to our understanding.

Ease can have a dual meaning - being able to do something with ease or a feeling of being at ease. In an airport environment where people are generally under a degree of stress due to time pressure, lack of control etc., the idea of people feeling at ease as they make their way and a recognition that we have made processes as easy as possible is compelling. Furthermore, this will resonate with our partners, customers and suppliers.

Experience goal

Feel at ease

We are committed to providing efficiency as a marker of the experiences we create. This is efficiency in the broadest sense – smooth, controlled, rapid journeys for passengers; energy efficiency through our processes and service provision; cost efficiency and value for money for our suppliers, partners and regulator; and landside/airside operations that are optimised for all parties.

Sustainability also needs to be to the core of our airport operation. We now have significant work to do to ensure that we are making the necessary climate adaptations for our business. We are committed to adopting a sustainable approach to airport development which responds to important environmental constraints associated with future development and includes mitigation where necessary and appropriate. Going forward our focus will be on reducing environmental impacts, building climate resilience and promoting quality of life for neighbouring communities.

Key to enabling this vision and high quality airport service is having regulatory certainty for the building block provisions outlined throughout this proposition. This focus on "high quality", "climate change and sustainable development", has a newfound prominence under the Commission's revised statutory objectives which are due to come into effect in the coming months.

Our **Strategy**

Future Needs

Our strategy as an airport is based around meeting the high expectations of airport users and stakeholders and secure our long-term viability by preparing appropriately for meeting future needs.

This requires a strategy that will optimise our post-pandemic recovery and do the necessary undertakings to prepare responsibly for the next phase of our organisation's and industry's history.

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Regulatory **Building Block**

Summary Proposition

Building Block / TOPIC	Proposed Approach
SERVICE QUALITY	**a)** We are requesting the consideration for a Service Quality Rebates and Bonus Centric Scheme (SQRB) i. instead of only penalising for going over 30minutes 100% of the time, we believe the Commission consider the option to incentives Dublin Airport when queue times stay below a certain period for a certain % of time. **b)** Pending the broader metrics remaining in place we are asking for a number of the pax satisfaction measures to be updated. These are: i. Walking distance to be replaced with 'ease of movement' ii. Ground transport on arrival to reviewed in full with different approach. iii. Sense of safety for health to be added for monitoring only.
PAX FORECAST	**a)** We are proposing a forecasting methodology based on a combination of: ✈ Determine the baseline with a judgment-based forecast for 2022 ✈ Business intelligence to ensure a realistic output ✈ Use a combination of industry forecasts. **b)** Following this approach, we are proposing: 2023 2024 2025 2026 ***Passenger Forecast ('m)*** [redacted]

Building Block / TOPIC	Proposed Approach
OPEX	a) [redacted] b) [redacted] c) [redacted] d) [redacted]
COMMERCIAL REVENUE	a) We believe that commercial revenue per passenger is expected to revert to pre-COVID levels but with growth limited due to capacity constraints when passenger volumes recover past 33m. b) Our forecasts are prepared using on a bottom-up basis building on our knowledge of our commercial business, assessment of the unique set of challenges that we will face in 2023-26 and analysis of wider trends in each of our business segments. c) We advocate for the implementation of a hybrid till as part of the next review in 2026. d) [redacted]

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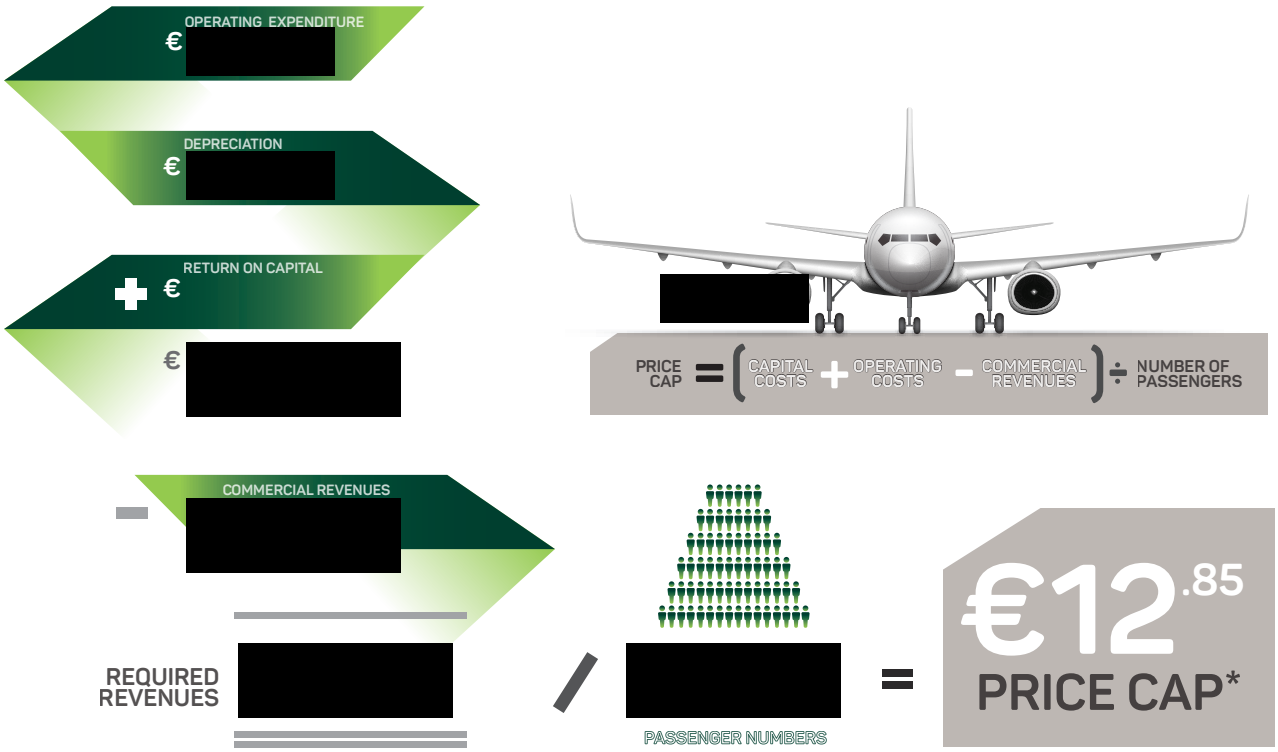
Regulatory **Building Block**

Summary Proposition

Building Block / TOPIC	Proposed Approach	
CAPEX	a)	Dublin Airport believes that unspent capex for 2020-2022 should be retained in the RAB in order to compensate Dublin Airport for the severe losses in revenue experienced in 2020 - 2021 due to COVID-19.
	b)	To support Dublin Airport to achieve its targets on aviation, climate change and sustainable development, remuneration of sustainability related capex should be accelerated.
	c)	The CIP2020+ Review profiles a spend of €2.5bn for the period.
COST OF CAPITAL	a)	Dublin Airport has experienced a substantive increase in risk due to the pandemic and faces a high level of market uncertainty going forward.
	b)	[redacted]
	c)	NERA concluded that a higher level of risk has driven an overall increase in the asset beta.
	d)	Dublin Airport has adopted approach 2 to the estimation of the cost of equity.
FINANCEABILITY	a)	[redacted]
	b)	A credit rating of not less than BBB+ is required to retain the financeability of the regulated entity into the next period.

Building **Block Model**

Indicative Price CAP calculation for 2023



Price CAP **Projections**

2023 PRICE CAP	2024 PRICE CAP	2025 PRICE CAP	2026 PRICE CAP	Average CAP
€12.85	€13.40	€13.69	€14.58	***€13.68***

* k-factor adjustment applied

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Regulatory Building

Executive Summary

2022©

Introduction

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1. Introduction

1.1 Context of Review on Dublin Airport

1.1.1 Dublin Airport has been the subject of economic regulation since 2001. The regulatory framework and constituent elements of the price cap application has broadly not varied or adapted since then. The COVID-19 pandemic brought about the most profound operational and financial challenges for global aviation in modern history. As we collectively seek to recover and adjust, we continue to face significant uncertainty and arduous market conditions. Dublin Airport believes that we must acknowledge the difficulties which arose and the burden which the regulated entity and its staff has endured on the back of the pandemic. Indeed, these difficulties were industry wide, with our key stakeholders, airline customers and the travelling public experiencing the same operational and financial challenges. Furthermore, we are ever mindful of the how the war in Ukraine, the associated political instability and humanitarian crisis may evolve over the coming months.

1.1.2 The objective of this regulatory proposition and the overall Review is to position Dublin Airport in the optimal post pandemic recovery standing. The macroeconomic outlook is skewed by varying scenarios of political, military, economic and environmental impact. In light of these uncertainties, we must now rebalance and allow Ireland's leading airport a credible price path under the regulatory framework as we seek to drive our recovery and future development strategy.

1.1.3 Fundamental to enabling the restoration of traffic and stability for the business is the pricing decision which emanates for the Commission under the forthcoming 2022 Review. As we commence this review, Dublin Airport believes it is crucial that the Commission not only reviews the regulated entity's building block allowances, but also proper consideration to broader market dynamics, including the behaviour of airlines as well as our peer competitor airports in Europe. COVID-19 has served as the structural change in the aviation market which has focused all parties on the impacts and application of pricing. Given this structural market shift, historical market data may not provide the insights expected into current or future airport or airline behaviour. Dublin Airport is keen, that the Commission applies a combination of appropriate methods in quantifying the forward price review.

1.1.4 The level of risk in the aviation Industry is exceptionally high as we battle a series of consecutive crises. We have been forced to deal with significant demand and capacity uncertainty/volatility, huge cost pressures across all inputs (CPI, raw material prices, energy costs, wage inflation and skills shortage), our sustainability challenges plus the increasingly negative geopolitical climate. As a result, investor risk appetite for aviation has been severely challenged and ultra-low airport charges cannot hold against the tidal waves of countervailing negative pressures.

1.1.5 The Commission must recognise that the price path for Dublin Airport for the remainder of this decade is significantly higher than the trajectory set in the 2019 Determination. Evidently action is required to address and rebase the price cap in the current operational reality. Our current draft assessment of each building block input would indicate a higher average base price cap trajectory for the period 2023–2026 than the regulatory proposition of €9.65 in 2019. As outlined in chapter 2, Dublin Airport has quantified that the price cap must now be in the range of c. €13 for the forward review period rather than the current price trajectory of over €9 under the current Determination.

1.2 Current Challenges at Dublin Airport

1.2.1 As the aviation sector recovers from the COVID-19 pandemic, Dublin Airport like many other airports, has found itself facing severe operational challenges in the area of security that are extremely difficult to fully resolve in the short-term. Our security team has been presented with unprecedented impediments to their day-to-day operations primarily due to the following

- The unanticipated increase in passenger volumes currently running in excess of 20% of budgeted forecast
- A highly competitive labour market which has made recruitment of new security officers very challenging
- Exceptionally high absence levels primarily driven by COVID-19
- Refamiliarization of the travelling public to security processing which has a direct impact on passenger throughput, and
- A marked increase in prohibited items presenting through passenger screening.
- The upskilling of current staff and training of new staff based on security regulatory requirements.

1.2.2 In efforts to address this situation we are currently looking to recruit additional staff in the security area. However, there are lengthy lead times in the training of new security staff, furthermore there is now a requirement for enhanced background checks for new recruits working in the security area. There is also the challenge of a very competitive employment market in which daa in now competing to attract the appropriate new staff members. The training process for new recruits is also affected by COVID-19 related absences and has resulted in delays in getting trained ASU officers on the floor. All these factors make it challenging to resolve the security queuing issues in the short-term.

1.2.3 To address our current challenges, Dublin Airport continue to embed new ways of working to effectively manage the resources we have. The current roster model incorporates both core and flexi rosters, with a focus on being able to meet anticipated passenger demand at the airport. We have the ability to scale up and down in accordance with fluctuating passenger demand. Cross terminal working has also been adopted which means that resources from

across both Terminals are pooled and deployed during busy periods to the Terminals to screen passengers. This means resources are being utilised more efficiently across the terminals.

1.2.4 Despite these current challenges, our focus in security remains on ensuring that we continue to comply fully with all European and Irish security regulations and that at no time is the safety of passengers and aircraft compromised at Dublin Airport.

1.2.5 These current challenges are not unique to Dublin Airport. We have seen over the last month significant delays attributed to similar issues with security screening across Europe. In particular Manchester Airport in the UK has had delays in both their security and baggage operations due to staffing issues[1]. There have also been delays reported in the press in Heathrow[2], Gatwick[3] and Belfast International. Furthermore, Amsterdam Schiphol has asked airlines to cancel flights for consecutive weekends since the start of the Summer 2022 season, with this action being taken as a last resort due to labour shortages. Similar announcements were also published by Fraport Germany's largest airport operator[4].

1.2.6 We believe that despite our best efforts, the current challenges in security screening at Dublin are likely to last into the Summer 2022 season. Going forward Dublin Airport will endeavour to ensure that we provide an efficient operation at security that will benefits all airport users in line with past experiences at the airport. However, this will be contingent on receiving a sufficient operating expenditure allowance to allow for adequate resourcing at the airport.

1.3 Objectives for 2030

1.3.1 Dublin Airport's future strategy is based around plans to meet the high expectations of our airport users and stakeholders now and to secure our long-term viability by preparing appropriately for future needs. The key drivers of our strategy include network, customers, people, planet, and finances.

1.3.2 In implementing this strategy, we have a number of set goals for 2030:

- **We will have the most balanced network in Europe**. We believe that providing a quality air network is the first duty of the airport and a necessity for international travel, trade, and tourism. Ireland needs direct connections, robust schedules and an airline portfolio that offers choice to consumers and the benefits that competition brings to stimulate a market. A balanced network means the right balance of airline model, fleet, and reach/connectivity.

[1] https://www.bbc.co.uk/news/uk-60968488
[2] https://www.standard.co.uk/news/london/travellers-easter-heathrow-covid-shortage-manchester-airport-b992165.html
[3] https://www.independent.co.uk/travel/news-and-advice/gatwick-airport-south-terminal-delays-b2045562.html
[4] https://www.reuters.com/business/aerospace-defense/fraport-cancels-flights-due-personnel-shortages-2022-04-06/

- **Support the Continued Development of Home-Based Carriers.** We aim to stimulate short haul traffic and facilitate the ongoing development of the Transatlantic Joint Venture. We also want to support the current based operation and aim to develop further growth from non-based units to minimise impact on capacity and facilitate introduction of 737MAX aircraft with additional seats and noise benefits.
- **Support Growth in Long Haul Markets.** For travel to the USA and Canada we aim to stimulate recovery and build frequency and year-round capacity into core US and Canadian hubs, building on the strength of Ireland as a 'safe' recovery market. We want to promote connectivity to other long-haul markets – ensure recovery of both frequency and capacity from European flag carriers, and Middle East operators to ensure hub connectivity is maintained for Asia, Australasia, Africa, and Latin American markets. Finally, we want to begin the process of rebuilding relationship with Asian carriers.
- **Provide effortless travel experiences & rewarding partnerships**. We are a people and service business. Experiences are at the core of everything that we do. We want to make travelling, buying, communicating, and contracting a positive and mutually beneficial experience.
- **Take the lead in sustainable transformation in national aviation**. We will take responsibility and commit to transformation in how we do our business regarding every facility, every process, every decision in order to achieve our sustainability targets.
- **Provide our employees with an exciting career, not just a job**. Our people are our greatest asset and must be a priority. With the aftermath of the pandemic and the competition for talent, the drive for potential employees to see long term value and purpose in our brand and the need for us to improve our own employee experience are key drivers within our strategy.

1.3.3 Key to achieving the above goals and maintaining Dublin Airport's resilience while continuing to meet the travelling publics expectations is a strategic price cap aligned with the building block inputs detailed as part of this proposition. As is detailed in Chapter 3 Market Review and Passenger Insights, post-pandemic passenger expectations have increased. Dublin Airport has considered how best to reflect passenger and airline demands as part of the Operating Expenditure and Capital Expenditure detailed in this review. It is crucial the Commission understand the direct implications that should a lower price settlement than that which is requested be progressed, this will ultimately prejudice the delivery of these collective goals

Introduction Chapter Summary:

- The pricing decision which emanates under the forthcoming 2022 Review will be fundamental to enabling the restoration of traffic and stability for our business.
- Dublin Airport is currently exposed to an exceptionally high level of market uncertainty and risk.
- We are currently seeking to address a number of challenges related to our passenger security operations.
- Our future strategy is based around plans to meet the high expectations of our airport users and to secure our long-term viability by preparing appropriately for future needs.
- We have a number of key goals for 2030 but to achieve these we will need a supportive regulatory framework.
- The pricing proposition is required to deliver on Dublin Airport's resilience and investment commitments. It is fully aligned with consumer expectations for service provision both now and into the future.

02 Pricing PROPOSITION

DublinAirport

2. Pricing Proposition

2.1 Approach to Pricing

2.1.1 The COVID-19 crisis fundamentally changed the supply and demand situation in the global aviation market. The very essence of this review necessitates Dublin Airport to analyse and rethink the overall price proposition. Our airline customers, commercial partners and passengers have seen first-hand the challenges which the pandemic inflicted on international travel and Ireland's connectivity. Throughout these testing times Dublin Airport has facilitated a suite of measures to support our key stakeholders while retaining an efficient operation.

2.1.2 It is important to acknowledge that the price cap allowance from which airport charges are derived are the annual charges set by Dublin Airport for the use of the runway and terminal facilities. The travelling public and broader stakeholders should have transparency and understanding emanating from the Commission which informs that airport charges are a relatively small and stable component of an airline's cost base. This compares to much more pronounced and frequently observed changes in other airline costs such as fuel and aircraft costs that are both more significant and more volatile. Independent analysis by ICF corroborates how weighted by passenger volume, almost 80% of passengers are carried on airlines for whom airport charges represent 6% or less of their cost base [5].

2.1.3 Airlines price air fares according to market fundamentals. Numerous case studies demonstrate that the price of a seat can vary significantly depending on when the ticket is booked, time of travel and the levels of competition on the route. These variations in price are primarily driven by short run demand and supply factors, not the long run cost of operating the flight.

2.1.4 There is also significant impartial industry evidence which confirms that airlines do not always pass on cost changes to passengers, whether positive or negative. Precedence suggests that the airlines have taken a conscious decision to price to the market while absorbing small changes in operating cost base[6].

2.1.5 It is therefore essential that the annual price cap should be determined by the requirements arising from each of the building block components which when taken collectively will derive an annual level of required revenues.

2.1.6 In this instance Dublin Airport is setting out its forecast for each of its building block requirements and thereby providing the Commission with what we believe to be the components of the annual price cap for the period 2023-2026. The path to rational, reasonable, and sustainable prices, which allows both the Commission and Dublin Airport to

[5] Identifying the Drivers of Air Fares, ICF report prepared for ACI Europe, May 2018.
[6] Ibid, see section 5.5.2 above: Pass-through case study: Airport Charges.

properly deliver on their respective statutory obligations can only be achieved through the increase in annual rates which we propose. Failure to deliver an increase to the price cap will have significant detrimental impacts to delivering on Dublin Airport's strategy and statutory obligations.

2.1.7 The overall annual pricing proposition for the period is supported by the transparent and accountable detail provided in each of the regulatory building blocks.

2.2 Dublin Airport Pricing Proposition 2023-2026

2.2.1 As is evidenced throughout this submission, there is significant market uncertainty and volatility for the period for which this review is being undertaken. The more recent crises which the aviation industry as a whole has endured has created a change in the supply and demand dynamics, further detail on this is outlined in chapter 3. The very impetus for this review has necessitated Dublin Airport to analyse our overall pricing proposition. As part of this we have had to establish how Dublin Airport, as one of the most important economic assets to the Irish state can deliver a fit for purpose, passenger centric, world class airport campus. Dublin Airport is committed to progressing our high quality, security focused service. Fulfilling our passenger and airline expectations, while remaining one of the most competitively priced European airports.

2.2.2 Dublin Airport has focused the pricing proposition on the forecast allowances for each of the regulatory building blocks. This is based on informed analysis and where relevant corroborated by a range of independent advisors:

TABLE 1 SUMMARY OF DUBLIN AIRPORT'S PRICING PROPOSITION 2023-2026

Pricing Proposition	2023	2024	2025	2026	*Average Cap*
Opex (€m)	[redacted]	[redacted]	[redacted]	[redacted]	
Commercial Rev (€m)	[redacted]	[redacted]	[redacted]	[redacted]	
Capital Costs (€m)	[redacted]	[redacted]	[redacted]	[redacted]	
Required Revenue (€m)	[redacted]	[redacted]	[redacted]	[redacted]	
Pax Forecast (m)	[redacted]	[redacted]	[redacted]	[redacted]	
Price Cap	**€12.85**	**€13.40**	**€13.69**	**€14.58**	***€13.68***

2.2.3 Fundamental to Dublin Airport's pricing and overall regulatory proposition is achieving a financially viable position for the regulated entity. As detailed in the financeability chapter.

2.2.4 This requires a stand-alone credit rating of no less than BBB+; a minimum FFO Net debt >13% and Net debt / EBITDA <5x. When all key inputs are analysed the summary as outlined above

is the minimum price cap range which allows Dublin Airport to deliver for the forward Determination period.

2.2.5 Dublin Airport is seeking to provide value, sustainability, quality, safety and efficiency of service and facilities which is seminal to achieving not only the forward regulatory proposition period but for Ireland's premier gateway.

2.2.6 This position is based primarily on balancing the justification for higher price outcomes with a desire to maintain maximum price competitiveness.

2.2.7 Furthermore, this pricing proposition would deliver the vision and objectives of the forward period, enhancing passenger value through:

- The opex forecast enables the provision of adequate resources across the front-line business. This includes but is not limited to rebuilding the security team post pandemic, providing the optimal level of airside operations, campus service, retail and cleaning & facilities staff.
- The revised Capital Investment Programme details new projects in the areas of commercial, capacity and a sustainability envelope. These large-scale capital infrastructure projects (as outlined in appended the CIP2020+ Review) are fundamental to delivering on the travelling public's expectations and enhancing Dublin Airport's facilities.
- This pricing level would also ensure that the service quality measures which passengers are directly engaged with are being met through optimisation of the passenger journey, ease of movement and adequate facilitation.

2.3 Pricing Adjustments

2.3.1 In our response to the Commission's Issues paper CP1/2022, Dublin Airport requested that the Commission retained or reintroduced a number of its price cap adjustments in the regulatory formula for 2023-2026.

2.3.2 We are requesting the continued application of the K factor term in the regulatory formula to allow for a limited carry over of under recovered revenues against the annual price cap. The K-factor application is necessary due to the high level of uncertainty in the market.

2.3.3 The current uncertainty in the market makes it extremely difficult to forecast passenger numbers making it almost impossible to project annual airport charges revenue with accuracy. Given the level of market instability in the market, Dublin Airport requests that the K factor application is increased from 5% to a minimum of 10% for 2023-26.

2.3.4 We want to request the inclusion of the CPI adjustment in the price cap formula. Given that the regulatory model is set in a constant price level, it is appropriate and intended that a CPI adjustment should be applied through the price cap formula to maintain the real value of the

annual price cap. Given the current highly volatile inflationary environment we suggest that in addition to the general CPI adjustment further allowances must be made to take account of a potential differential between CPI and wage or construction price inflation. This is further reviewed in the Treatment of Inflation subsection of the Capital Expenditure Chapter.

2.3.5 In the 2019 Determination, the Commission introduced an operating uncertainty mechanism. This was to allow for certain unanticipated operating costs outside the control of Dublin Airport, to feed through to the price cap within the regulatory determination period. The intention was that the mechanism would allow for an up-to-date estimate of such costs to adjust the price cap with a one-year lag, through the W-Factor term in the price cap formulae. The final result would be that the unanticipated operating costs covered by the mechanism would be recovered in full by Dublin Airport.

2.3.6 Dublin Airport requests the inclusion of this measure in the price cap formula for the regulatory period 2023-2026. It should be noted that this would encapsulate the limited extent of risk sharing proposed by Dublin Airport for this Determination period.

2.3.7 Dublin Airport proposes that the Commission could potentially extent the application of this scheme to include a broader range of non-payroll costs that are beyond the direct control of daa, details of our request in this regard are set out in section 5.5.

2.4 Airport Charges Benchmark

2.4.1 Comparative benchmarks of airport charges have shown that Dublin Airport is one of the most competitive of the larger airports in Europe in relation to airport charges. Following the 2019 Determination, the Commission implemented a 20% charging reduction in 2020, severely curtailing our future earnings and leaving us with no headroom for downside risks.

2.4.2 Dublin Airport's price levels have been declining in real terms, year on year since 2010. While Dublin Airport accepts that in direct top-down analyses, a comparison can be made with peer airports across several productivity measures, any analysis can be potentially unreliable unless the data used is normalised across the sample airports.

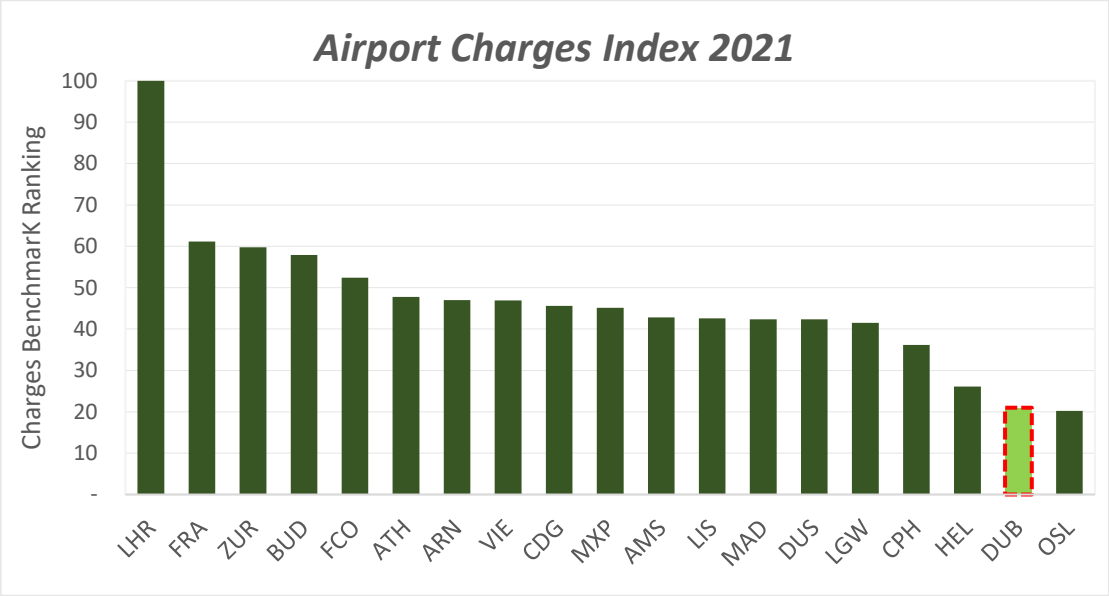
2.4.3 To demonstrate an impartial competitive ranking of Dublin Airport when compared to similar peer airports in Europe, a sample comparative range and data has been drawn from the independent Jacobs UK review of Airport Charges 2021.

2.4.4 Year on year comparatives demonstrate that Dublin Airport's charges ranking has decreased considerably when analysed against similar peer European airports, with Dublin ranked as one of the most competitive in the region.

2.4.5 The following index of charges is calculated from the aeronautical charges that would be imposed on a sample of eight different aircraft types making one landing and one departure at the comparator airports. The aircraft vary in size from around 140 seats (Airbus A319) to

around 400 seats (Boeing 747-400). The sample is intended to cover a range of commonly used aircraft on international services. The charges are calculated in the currency in which they are levied, which is generally the local currency.

FIGURE 1 : AIRPORT CHARGES INDEX 2021



Source: Jacobs UK Review of Airport Charges 2021

2.5 Dublin Airport Competitive Position

2.5.1 Dublin Airport is one of the cheapest airports in Europe having one of the lowest aeronautical pricing levels of comparable airports. Going forward Dublin's airport charges will remain among the lowest in Europe even if the price cap was to increase as outlined above in the next regulatory period.

2.5.2 In the wake of the pandemic and in light of the required long-term development of the airport, there is an urgent need to increase prices to maintain the financeability of the airport and meet the needs of current and future users. The evidence-based analysis undertaken for the purpose of this proposition points to a price cap of c. €13, which will still be highly competitive.

2.5.3 Moreover, given the high levels of competitiveness in the airport market, there is limited scope for Dublin Airport to set prices above the competitive level so the risk of setting the price cap too high is lower than in the past.

2.5.4 It is also important that the Commission recognises the competitive nature of the airport sector. In the past airports were considered to be natural monopolies. However, it is now clear that airports must compete with each other for passengers and airlines which have

significantly more choice than in the past. Airports themselves have become more commercially focused. The result is a more competitive and dynamic airport market[7].

Pricing Chapter Summary:

- Airport charges are a relatively small and stable component of an airline's cost base. There should be increased transparency to inform consumers of this impact.
- Based on the price cap regulatory building block formula, Dublin Airport is proposing an average charge for the regulatory period (2023-2026) of €13.68.
- As evidence by an independent airport charges review undertaken by Jacobs, Dublin Airport is amongst the cheapest of its peer competitor airports in Europe.
- Given the high levels of competitiveness in the airport market, there is limited scope for Dublin Airport to set prices above the competitive level so the risk of setting the price cap too high is lower than in the past.

[7] Oxera, 2017. The Continuing Development of airport competition in Europe. report for ACI Europe.

03
Market Review
& PASSENGER INSIGHTS

DublinAirport

3. Market Review and Passenger Insights

3.1 Broader Markets Impacts

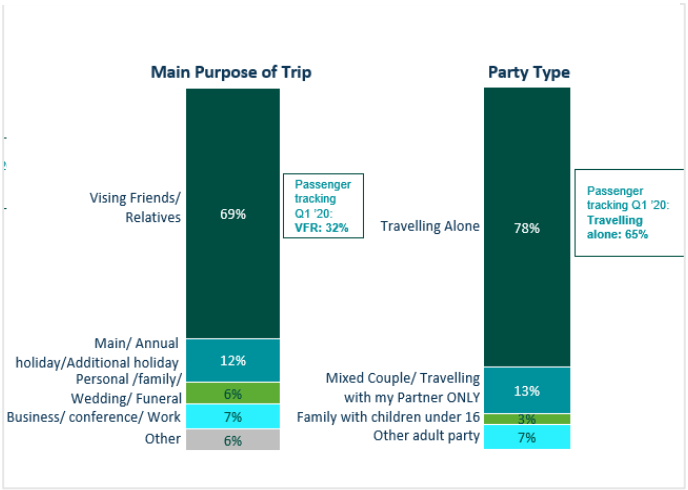
3.1.1 After a decade of consistent and robust growth in global passenger traffic, the COVID-19 pandemic virtually halted activity at airports around the world in the second quarter of 2020. As a result, the total number of passengers for the year fell sharply from 2019, to a level the world's airports had not seen since 1997.

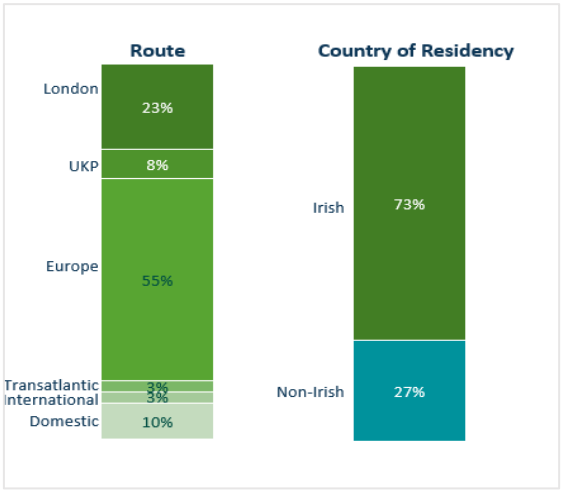
3.1.2 COVID-19 crisis has drastically impacted the aviation industry. It has also altered the demographics and behaviours of passengers as they move through the airport. As we move into a period of recovery, the impact of the pandemic on passengers will continue over the next few years. This will have wide raging impact on the type of passenger we see coming through the airport, and also the behaviour of passengers as they interact with the airport.

2020: The COVID-19 Crisis Begins

3.1.3 In 2020 passenger numbers dramatically decreased as a series of lockdowns and travel restrictions came into play across the world. In December 2020, Dublin Airport conducted a review into the small number of passengers coming through the airport. The profile of passengers at this stage was dramatically different from the usual demographics of passengers. This group of flyers were in the majority under 35 years and travelling to visit friends and relatives.

FIGURE 2: DEC 2020 PASSENGER PROFILE



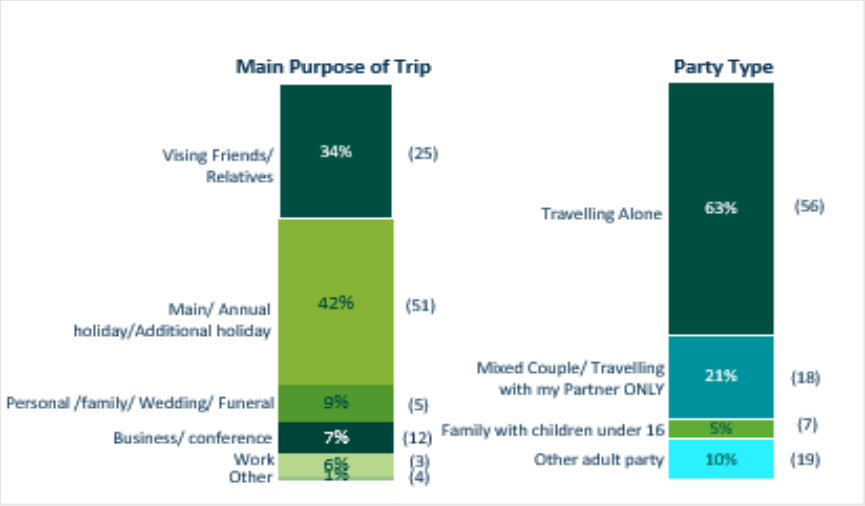


Source: Dublin Airport Dec 2020 CSM wave, Departing Passengers n=230

15th July 2021: Travel Re-Opens

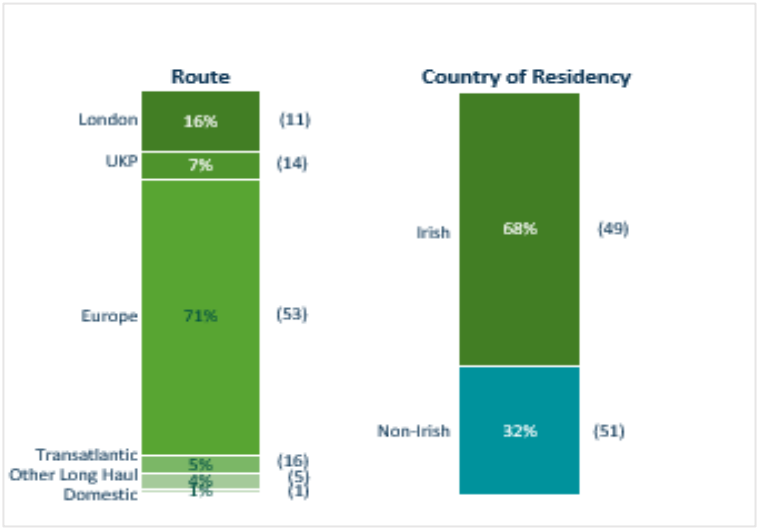
3.1.4 Progress in vaccination rates, lower COVID-19 numbers and increased consumer sentiment saw a boost to numbers travelling over the summer period in 2021. Looking at the profile of passengers, we saw a continued focus on leisure, however along with those travelling to visit relatives and friends, there was also substantial holiday leisure travel. Age balanced out, with passengers across all age groups feeling happy to travel. The vast majority of our passengers at this time were Irish residents. This high proportion of Irish residents had a knock-on impact on services, especially model choice to the airport as Irish residents are high private car users and users of car parks.

FIGURE 3: SEPT 2021 PASSENGER PROFILE

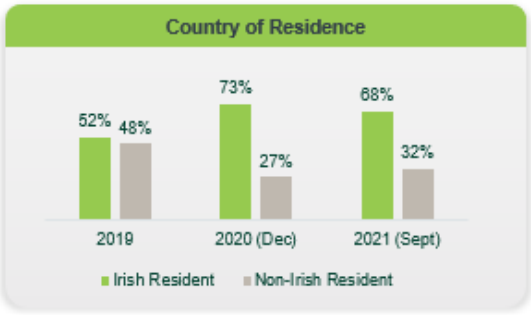


Source: Dublin Airport Dec 2020 CSM wave, Departing Passengers n=230

FIGURE 4: KEY DEMOGRAPHIC CHANGES IN REASON FOR TRAVEL AND COUNTRY OF RESIDENCE OVER THE COURSE OF THE PANDEMIC



Reason for Travel	2019 (Full Year)	2020 (Dec '20)	2021 (Sept' 21)
Holiday	44%	12%	34%
Visiting Relatives & Friends (VFR)	26%	69%	42%
Business	19%	7%	13%
Other	11%	12%	10%

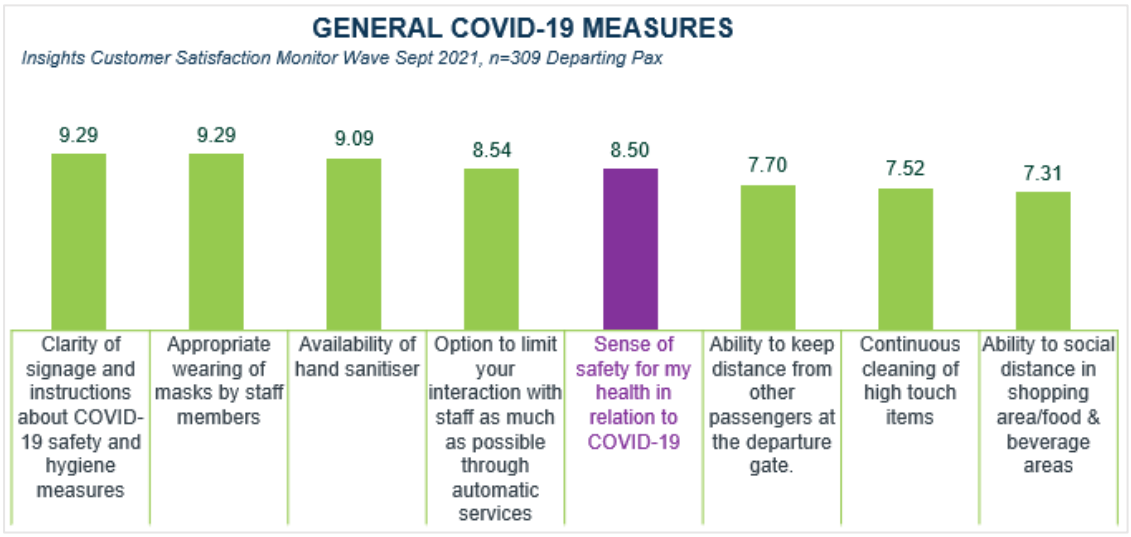


Source: Dublin Airport Dec 2020 CSM wave, Departing Passengers n=230

Addressing COVID-19 Concerns in the Airport

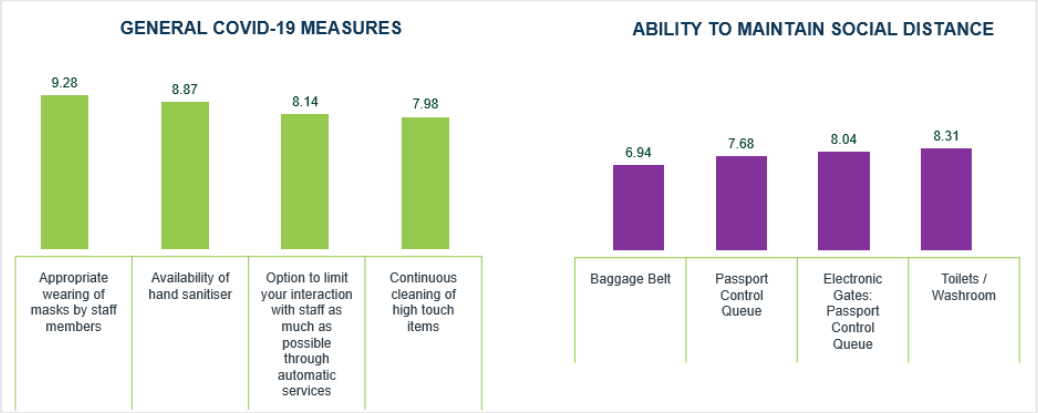
3.1.5 While there were increased passenger numbers travelling through the airport, passengers continued to be concerned about COVID-19. Research identified that the top concerns when travelling through the airport were cleanliness and control over personal space. Dublin Airport had implemented a number of health and safety measures across the airport. Satisfaction scores returned for these measures show an extremely high rate of satisfaction, indicating that passengers are feeling safe coming through our airport.

FIGURE 5: SATISFACTION WITH COVID-19 PROTECTION MEASURES DEPARTING PASSENGERS



Source: Dublin Airport Sept 21 CSM wave, Departing Passengers n=320

FIGURE 6: SATISFACTION WITH COVID-19 PROTECTION MEASURES ARRIVING PASSENGERS

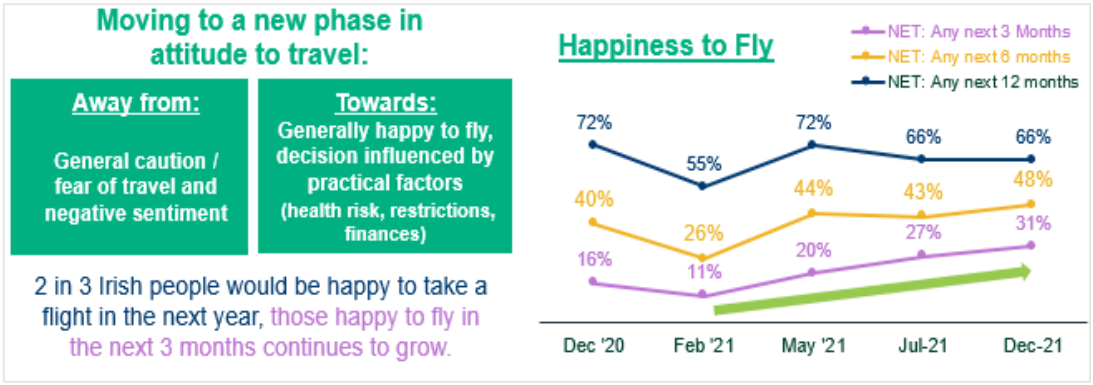


Source: Dublin Airport Oct 21 CSM wave, Arriving Passengers n=300

2022: Recovery of Air Travel

3.1.6 We have seen a strong interest in travel again from the general public. While the start of the year was impacted by the Omicron variant, the summer is looking like a time where Irish people are looking to travel again.

FIGURE 7: HAPPINESS TO FLY



Source: Dublin Airport / RedC Covid Tracker, Dec 21, Irish Nat Rep n=1000

3.2 Market Insights for Recovery

3.2.1 Dublin Airport's mission is to provide an international gateway to be proud of and our long-term vision is to create experiences for our passengers that are characterised by efficiency.

3.2.2 The impact of the pandemic will affect the type of passenger we expect to see coming through the airport. Major demographic impacts will continue over the course of 2022, before hopefully settling down in 2023 and beyond. We can expect that the dominance of leisure travel to continue, as business travel is expected to recover much more slowly, with forecasts expecting global business travel to recover to 2019 levels in 2024.

3.2.3 Following a 53.8% decline in 2020, global business travel spending is expected to rise by 38% in 2022, implying a recovery to 73% globally compared to 2019.

3.2.4 We can also expect a strong Irish resident dominance, as outbound travel in 2022 is expected to outweigh inbound travel. Forecasts from Tourism Ireland and ITIC expect that while there will be an increase in inbound non-Irish residents, especially in the summer period of 2022, it will remain at lower levels than 2019.

FIGURE 8: DUBLIN AIRPORT BRAND PLATFORM

Essence	Warmth – Practicality - Ingenuity
Insight	The need to deliver efficiency without the loss of thoughtful human interaction
Proposition	Putting the human at the heart of everything we do
Values	Brilliant at the essentials – Respecting each other's value – Passing the baton – Always better

FIGURE 9: IRISH TRAVELLERS: BOOKED & PLANNED TRIPS FOR 2022

3.2.5 Recovery will continue into 2023, with global spending rising 23% year-over-year as even more international and group travel comes back online. By 2024 global business travel is forecast to have made a full recovery. The recovery in Europe has lagged the US and Middle East, who have large domestic markets. In 2022, business travel in Europe is expected to rise by 36%, followed by a 28% rise in the following year (GBTA BTI Annual Report Nov 21).

Impact of Demographic Changes on the Airport 2022 Onwards

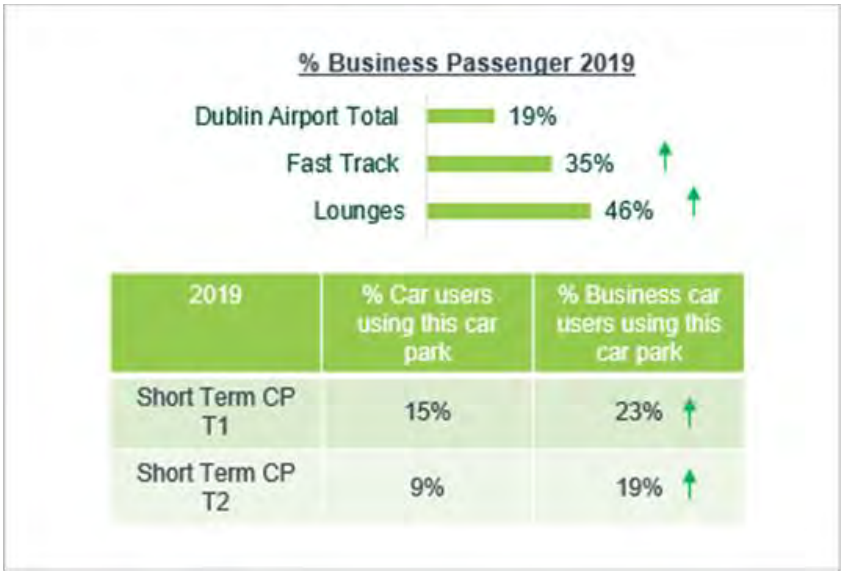
3.2.6 The demographic changes we have seen will continue to last into 2022 and is expected to re-calibrate in 2023 -2024. These changes will have a marked impact on the airport, in terms of commercial and operational processes.

Reason for Travel: Dominance of Leisure Travel

3.2.7 Certain products and services in the airport have traditionally high usage by business passengers, for example products such as Airport Lounges, Fast track Security and Short-Term Car Parking. While certain products (for example Fast Track, and to a certain extent Lounges) are being re-focused to a leisure audience, certain aspects of the business are suffering commercially from the slower recovery of business passengers.

3.2.8 Leisure passengers tend to have a greater amount of luggage, whether as hand luggage or checked in luggage. The increased proportion of leisure passengers with greater luggage needs places additional strain on process such as Baggage, but also check-in and Security, where there is a greater need for divestment and care taken with security processes e.g., removing liquids and electronics from baggage. Increase baggage results in increased process time at security.

FIGURE 10: BUSINESS PASSENGERS PRODUCT USAGE, DUBLIN AIRPORT 2019



2019	% Car users using this car park	% Business car users using this car park
Short Term CP T1	15%	23%
Short Term CP T2	9%	19%

Source: Dublin Airport Passenger Tracker, 2019

Irish Resident Passengers

- Irish resident passengers traditionally are high users of private car as a means to get to and from the airport. This has resulted in higher usage of car parks in the airport.

- In 2021, the majority of passengers were Irish residents, leading to increased use of car parks. This is also influenced by a national trend to avoid public transport during the pandemic, due to safety concerns. It is likely that this will continue throughout 2022.
- Irish Resident passengers, specifically those travelling for leisure tend to have higher level of spend in the airport. They are more likely to purchase in retail and food & beverage categories. The spend is slightly higher for Irish residents travelling for leisure. Looking at the type of products that Irish leisure passengers purchased in 2019, they are more likely than non-Irish residents to buy high value items such as cosmetics, perfume, and skin care.

Optimise Recovery and Prepare Responsibly – Focus on Digital Platforms

3.2.9 A key focus going forward is the alignment between offline and online passenger experience, delivering seamless, integrated digital experiences across the full-service offering.

3.2.10 Studies indicate that the COVID-19 pandemic has accelerated digitisation across customer interactions/processes with companies by between three to four years. The shift to remote work as well as increasing levels of e-commerce has driven increased use of platforms and devices, greater levels of connection between digital tools and the need for/facilitation of data sharing with third parties.

3.2.11 E-commerce surged during the pandemic, increasing its share of total retail sales by two to five times its pre-pandemic rate in key economies globally. Leveraging these digital technologies and associated behaviours will allow Dublin Airport to improve efficiency, quality, and productivity, enabling positive experiences and optimising business opportunities.

3.2.12 The important trends to be aware of in the context of digital are:

- Pervasive Online Engagement: Dublin Airport will need to be able to seamlessly engage customers and employees in both physical and digital domains.
- Omnichannel Coherence: Irrespective of the channel used by our passengers or general public, the experience must feel easy, intuitive and consistent.
- The Growth of Social Commerce/Marketplace: The use of social media to drive awareness/sales by creating narratives that are 'shoppable' using rich media and content and its use to reach B2B markets.

COVID-19 Impact on the Broader Aviation Context

3.2.13 2021 saw a loss of 1.4 billion passengers vs 2019 traffic levels in Europe. Passenger traffic did increase by 37% in 2021 vs 2020, but it is still overall at -59% compared to 2019 (ACI, Jan 22).

3.2.14 Compared to 2019, the strongest results came from airports in Greece (-46.8%), Romania (-52.7%), Luxembourg (-53.9%), Cyprus (-55.6%), Bulgaria (-55.9%) – closely followed by Spain (-56.4%) and Portugal (-57.9%). Airports that suffered the largest losses in traffic were in

Finland (-80.5%), the UK (-78.1%), the Czech Republic (-74.8%) and Ireland (-74.4%). This has been attributed to strong travel restrictions in 2021 (ACI, January 2022).

3.2.15 Though recovery stalled in very early 2022 due to the Omicron variant, passenger traffic in Europe has increased in February, with airport in Portugal, Sain, Luxembourg, Croatia and Ireland posting the biggest increases (ACI, March 2022).

3.2.16 The outlook for Summer 2022 is strong but staff shortages, high traffic peaks and capacity issues are starting to put strain on operations across European airports (ACI, March 2022).

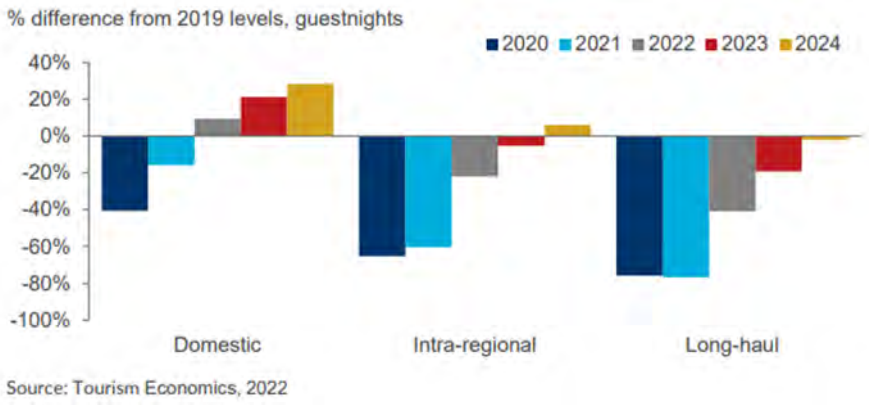
3.2.17 Propensity to travel is high among Europeans, with 56% of Europeans planning to travel to another European country between April and September 2022, with Mediterranean destinations having the highest appeal (ETC Sentiment for Intra-European Travel Wave 11, Mar 2022).

The Future of Aviation 2023-2026

3.2.18 Air travel is expected to recover quicker in markets that depend on domestic and short-haul markets, due in part to a consumer desire for familiarity and trips closer to home, lower costs, fewer travel restrictions.

3.2.19 In Europe, domestic leisure travel is expected to recover first, followed by international leisure travel, domestic business travel and international business travel. (European Travel Commission 2022 35). Inter-regional European travel is expected at the moment to recover to 2019 levels by 2024. Long-haul markets are not expected to return to 2019 volumes until 2025. This will have an impact beyond air travel as long-haul travellers tend to have longer durations and higher spends during their trips.

FIGURE 11: EUROPEAN RECOVERY IN TRAVEL SEGMENTS

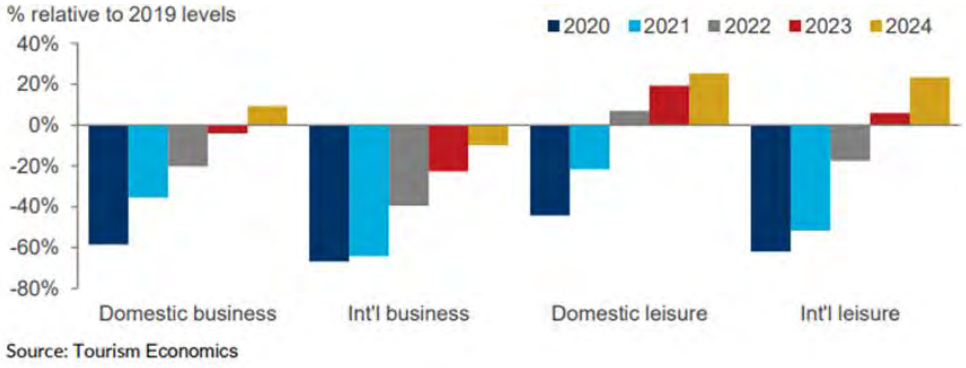


Source: Tourism Economics, 2022

3.2.20 From a global perspective, Europe's leisure travel is expected to recover faster than other areas of the world, most notably Asia-Pacific. Business travel is expected to have a much

slower recovery throughout Europe, with a full recovery not expected until 2024 onwards (Tourism Economics).

FIGURE 12: BUSINESS VS LEISURE RECOVERY IN EUROPE



The Future of Air Travel in Ireland

3.2.21 As per European travel patterns, leisure travel is expected to recover earlier than business travel. Therefore, the demographic shift in the passenger profile will possibly continue into 2023 and to a lesser extent into 2024. As Ireland is an island without a large domestic air market any return to air travel is a return to international travel.

3.2.22 The government released €90 million of support for the aviation industry in 2022. Dublin Airport have introduced attractive incentives to prioritise the recovery of traffic. This has been very successful to date with a number of carriers taking the opportunity to grow traffic in Dublin relative to 2019 levels. However, with the ceasing of the incentives in 2023, it is not known how much of this capacity will remain or divert to other lower cost airports.

3.2.23 We must also consider the potential high levels of pent-up travel demand, along with the current economic pressures exacerbated by inflation, energy prices and global supply shortages. Please see Section 7.3 for more detailed information on the future and risks to travel.

The Broader Consumer Context

3.2.24 The pandemic has left its mark on wider consumer expectations, in ways that reflect what passengers expect from the airport. In general, the latest CX (Customer Experience) report in Ireland found that there has been a return in consumers focusing on basics of trust, care, and reassurance. The biggest emotional driver behind associations in excellence in customer experience is the consumer feeling understood and empathised with. With the advance of digital and technology during the pandemic, more than ever there is an importance on achieving the appropriate balance between technology and human interaction (CX Annual Customer Experience Report 2021)

3.2.25 Labour shortages across Ireland and Europe has dramatically impacted both the Tourism and hospitality sector. Areas like telecoms, insurance and financial industries are also struggling with increased pressure on customer service lines as the pandemic moved focus away from face-to-face interaction towards online.

3.2.26 The return to recovery has challenged a number of different industries, including hospitality, airports and airlines, baggage handling companies to re-fill roles that were lost during pandemic times. This has resulted in a range of operational impacts across Ireland, the UK and Europe.

Market Review Chapter Summary:

- The COVID-19 pandemic has had a marked and sustained impact on Dublin Airport. In 2022 signs of passenger recovery are emerging.
- There are a number of new demographic trends such as the dominance of leisure travel and the higher proportion of Irish resident passengers.
- Research identified that the top concerns when travelling through the airport were cleanliness and control over personal space. Dublin Airport had implemented a number of health and safety measures across the airport.
- Dublin Airport's mission is to provide an international gateway to be proud of and our long--term vision is to create experiences for our passengers that are characterised by efficiency.
- Europe's leisure travel is expected to recover faster than other areas of the world, most notably Asia-Pacific. Business travel is expected to have a much slower recovery throughout Europe.
- The return to recovery has challenged a number of different industries, including hospitality, airports and airlines, baggage handling companies to re-fill roles that were lost during pandemic times.

04 Policy & LEGAL CONSIDERATION

DublinAirport

4. Policy and Legal Considerations

4.1 Policy Considerations

4.1.1 In seeking to comply with our statutory requirements and maintain the appropriate strategic development, Dublin Airport has also been guided by the National Aviation Policy[8] ("NAP"), which was published by the Department for Transport, Tourism and Sport ("DTTAS") in 2015. Among the goals outlined in the NAP are:

- Creating conditions to encourage the development of new routes and services, particularly to new and emerging markets
- Ensuring a high level of competition among airlines operating in the Irish market
- Optimising the operation of the Irish airport network to ensure maximum connectivity to the rest of the world.

4.1.2 These goals should be considered as key drivers for the aviation industry, and the regulatory framework needs to properly accommodate them, as achieving these set goals are essential for the economic recovery of not only the aviation industry but for Ireland as a whole. The economic benefit cannot be overstated if implemented correctly. The Commission has a pivotal role to play in this regard.

4.1.3 As we move past the most challenging period for aviation in modern history it is evident that there are grounds to revise and update the NAP to align with new reality of post pandemic travel, the changing market dynamics, and competitive international nature of the industry.

4.2 Broader Policy – Critical Importance of Aviation in Ireland

4.2.1 As a small, open island economy, Ireland is crucially dependent on its air links to facilitate and grow its economy. Dublin Airport therefore plays a vital role as a strategic enabler for business growth and economic development and essential for sectors including export/import trade, technology, and tourism.

[8] DTTAS, National Aviation Policy, September 2015.

FIGURE 13: DUBLIN AIRPORT'S ROLE

4.2.2 In 2019, the total economic impact of Dublin Airport includes supporting 129,700 jobs in Ireland and a total of €9.8 billion contribution to GDP. During this period Dublin Airport processed 157 million tonnes of cargo.

4.2.3 Dublin Airport also plays a central role in supporting the social fabric and national wellbeing of the country, enabling residents to make their living or enhance their lives by travelling overseas, keeping families and friends connected, bringing tourists on to the island and in providing safe and efficient routes for personal, medical, and humanitarian travel.

4.2.4 Dublin Airport's national strategic role as described in policy is to deliver high quality international connectivity for Ireland and to enable our strong position as an aviation hub in Europe. This requires appropriate investment in assets such as the new runway but also in the wider campus, improving public transport access and connections from the road network from the west and north. In the longer term, rail access via connections to the wider national rail network will be considered and is an important development as we move towards sustainable mobility. As we look ahead for the next five years, we are also mindful of the shortness of such a time horizon for an organisation that must plan, design, and deliver 50-year assets, some of which have delivery plans that span multiples of this current window. The work we do over the next five years is essential in order to progress us towards a long-term airport vision, as defined by our proposition and master planning activity. If this work is not done in time it will lead to significant delays in delivery and essential infrastructure not being available when required – a legacy no one wants.

4.2.5 The airport campus is one of the largest land banks in Ireland and is home to a diverse range of businesses. The airport's role therefore spans much more than international connectivity - the airport is increasingly a business campus, a public transport hub and a location for accommodation. Projects for the further development of DAC, the building of a terminal linked hotel and the plan for an airport metro service, will enhance these aspects of the airport's role in the future.

4.3 Legislative Changes

4.3.1 As the Air Navigation and Transport Bill 2020 (the "**Bill**"), which will alter the statutory objectives of both the Commission and Dublin Airport, has not yet been enacted, our observations and comments remain as set out in the Dublin Airport Response to the Issues Paper, dated 14th March 2022.

4.4 Statutory Obligations of the Commission and Dublin Airport

4.4.1 The key statutory objectives and considerations are summarised below.

4.4.2 The Aviation Regulation Act 2001 Act (as amended) (the '2001 Act') sets out the regulatory objectives to be met by the Commission in setting airport charges. Section 33(1) of the 2001 Act provides that:
"*In making a determination, the objectives of the Commission are as follows-:*

> *(a) to facilitate the efficient economic development and operation of Dublin Airport which meet the requirements of current and prospective users of Dublin Airport".*
>
> *(b) to protect the reasonable interests of current and prospective users of Dublin Airport in relation to Dublin Airport"; and*
>
> *(c) to enable daa to operate and develop Dublin Airport in a sustainable and financially viable manner."*

The Commission's amended Statutory Objectives (under the Bill)

4.4.3 We note that Section 96 of the Bill revises the Commission's statutory objectives under Section 33 of the 2001 Act such that in making a determination, the Commission's principal objective shall be *"to protect and promote the reasonable interests of current and prospective users of Dublin Airport".* In addition to this provision, the Commission shall seek to adhere to the following:

> *"(a) promote safety and security at Dublin Airport;*

(b) facilitate the efficient and economic development and operation of Dublin Airport;

(c) promote high-quality and cost-effective airport services at Dublin Airport; and

(d) take account of the policies of the Government on aviation, climate change and sustainable development".

daa's Statutory Objectives

4.4.4 Dublin Airport must operate in accordance with a number of statutory obligations relating to Dublin Airport under both the Air Navigation and Transport (Amendment) Act 1998 (the '1998 Act'), and the State Airports Act 2004 (the '2004 Act').

4.4.5 One of the principal objects of Dublin Airport as set out in section 8 of the 2004 Act is to "*manage, operate and develop" and "ensure the provision of such services and facilities as are, in the opinion of the company, necessary for the operation, maintenance and development of its airports*...". The principal objectives of Dublin Airport are also set out in section 23(1) of the 1998 Act. Section 23 provides, inter alia that the principal objects are "*to take all proper measures for the safety, security, management, operation and development* [of Dublin Airport] "*to promote investment at its airports*". Section 23(3) provides "*the company shall have the power to do anything which appears to it to be requisite, advantageous or incidental to, or which appears to it to facilitate, either directly or indirectly, the performance by it of its functions as specified in this Act or in its memorandum of association…"*

Considerations:

4.4.6 Our key ask from this regulatory review is to find an appropriate price path that not only provides an efficient level of airport charges, but that will also allow Dublin airport sustain operations and secure its financial viability in the interest of both the airport and our airport users. The Commission's statutory objectives are enabled to facilitate and coalesce with daa's statutory objectives, and deliver our key ask which is for the benefit of all users of the Airport and the Irish economy.

4.5 Sustainability Obligations

Climate and Low Carbon Development Act

4.5.1 In July 2021 the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law. This Act establishes the following national climate objective:
"The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy."

4.5.2 The Act provides that the first two five-year carbon budgets should equate to a total reduction of 51% over the period to 2030, relative to a baseline of 2018. While that overall target has not yet been disaggregated into sectoral targets, it is understood that the transport sector will be required to achieve this 51% reduction in full.

4.5.3 This is a highly significant and challenging target, which will fundamentally guide and direct transport and infrastructure provision and use in Ireland over the next decade. Achieving this target will require a major transformation with a focus on increasing sustainable infrastructure and travel within the State.

Fit for 55

4.5.4 The competitive European airport market is not only based in economic principles but more recently it has become focused on sustainable consumer choices. Sustainability clearly needs to be at the core of Dublin Airport's operations. The collective challenge is how we bring this to life in a meaningful and credible way for our passengers and stakeholders.

4.5.5 As part of the European Green Deal, with the European Climate Law, the EU has set itself a binding target of achieving climate neutrality by 2050. This requires current greenhouse gas emission levels to drop substantially in the next decades. As an intermediate step towards climate neutrality, the EU has raised its 2030 climate ambition, committing to cutting emissions by at least 55% by 2030.

4.5.6 The EU is working on the revision of its climate, energy and transport-related legislation under the so-called 'Fit for 55 package' in order to align current laws with the 2030 and 2050 ambitions

4.5.7 The Commission's regulatory determination must ensure we have the ability to meet both these mandatory requirements and voluntary sustainability commitments. With sustainability spend significantly increasing in the near future alongside demands for effective sustainability data, digitisation, analytics and insights, specialist advisory services, upskilling, training and recruiting skilled staff and effective process development support.

4.5.8 These sustainability requirements relate to increased mandatory action to accelerate our carbon reduction strategy, stemming from the National Climate Action Plan, Public Sector Targets and Sectoral Carbon Budgets (in Ireland) and under current and pending EU Legislation (including but not limited to the Corporate Sustainability Reporting Directive and Fit for 55 legislation), as well as increased consumer and stakeholder pressure to fully understand, communicate and take action to reduce for our climate and environmental impacts.

4.5.9 Specifically, the "Fit for 55" programme will have direct implications for airport demand, pricing, and regulation. These will be focused on:

- ReFuel SAF obligations
- Alternative fuels infrastructure
- Emissions Trading Scheme (ETS) reform, and
- Energy Taxation Directive.

4.5.10 To allow Dublin Airport to more effectively and properly respond to these obligations, reduce our own carbon impact, and facilitate the greening of the aviation industry in Ireland we must have adequate flexibility to manage the ever-changing requirements. There is a strategic objective to minimise the future cost of carbon to the organisation, ultimately ensuring the longevity and sustainability of our organisation. Additionally, we need to be cognisant of the impact of our organisation on the local environment, and specifically reduce our noise impact, air and impact on biodiversity, and effectively resource this effort.

4.5.11 The Commission must take in to account the EU sustainability requirements and ensure Dublin Airport can met the demands being placed on it regarding sustainability, and that Ireland is to the forefront in meeting and adapting to the challenges. The Commission cannot take a weak approach regarding sustainability obligations.

4.6 Airport Charges Directive

4.6.1 The pandemic and associated challenges to the industry have called into question the effectiveness of the Airport Charges Directive (the 'ACD'). As the European Commission and DG MOVE are currently progressing a review of the ACD it is critically important that airports retain strategic authority to develop and implement their own pricing strategies based on the principles of consultation and transparency.

4.6.2 Dublin Airport is of the view that any changes to the ACD must be fully cognisant of the competitive European Airport market, where proportionate regulation is more than adequate for such a mature competitive environment.

4.6.3 Indeed, any scope of the ACD review must fundamentally view the Directive through the consumer and passenger lens, whereby a thorough understanding is provided regarding the pass-through of changes in charges.

Policy and Legal Chapter Summary:

- Ireland is crucially dependent on its air links to facilitate and grow its economy. Dublin Airport therefore plays a vital role as a strategic enabler for business growth and economic development.
- In 2019, the total economic impact of Dublin Airport includes supporting 129,700 jobs in Ireland and a total of €9.8 billion contribution to GDP.
- The collective focus of the Commission and Dublin Airport must be on "high quality" and "sustainable development".
- The EU "Fit for 55" programme will have direct implications for airport demand, pricing and regulation. The Commission must take in to account the EU sustainability requirements and ensure Dublin Airport can met the demands being placed on it regarding sustainability.
- The Airport Charges Directive (the 'ACD') is likely to be subject to review. Any changes to the ACD must be fully cognisant of the competitive European Airport market, where proportionate regulation is more than adequate.

05 Regulatory MODEL

DublinAirport

5. Regulatory Model

5.1 Reference to Dublin Airport's White Paper

5.1.1 In March 2021, Dublin Airport provided the Commission with its paper on the Regulatory Model Strategic Considerations where we set our views on the fundamental issues in the current regulatory framework. We outlined how our current regulatory regime results in a tightly specified outputs and a fixed price set by the regulator as part of a five-year regulatory cycle does not reflect Dublin Airport's degree of market power or the market circumstances in which we operate. In addition, such a regulatory model, which relies on a reasonable degree of accuracy in forecasting, is poorly suited to the level of uncertainty and volatility that is likely to persist for several years.

5.1.2 Since 2001, the Commission has applied a regulatory price cap model in the regulation of airport charges at Dublin Airport, where the regulatory price cap model results in a level of regulatory oversight which is excessive and disproportionate to the level of market power being held by Dublin Airport. After almost 21 years in existence, it is clear that current model is not fit for purpose and needs to be reviewed.

5.1.3 The price cap model was originally designed to safeguard consumer interests in a utility setting and that as such this is not entirely appropriate for the airport sector where there is limited relationship between airport charges and consumers (as detailed in chapter 2). This is quite a different market dynamic to that of the utility sectors which the Littlechild price cap regulatory model was designed to regulate. It is akin to a square peg and a round hole – it does not work.

5.1.4 In addition, since the introduction of price cap regulation in 2001, there has been a wide degree of fluctuation in aeronautical pricing due to the variation in the annual price cap. This is not ideal for an industry such as aviation where capacity and business planning need to be carried out.

5.1.5 Furthermore, we believe that the current price cap regulatory model should only be used where the regulated entity not only has strong market power but there is also evidence of market abuse. While we acknowledge that the Indecon market power assessment which was undertaken in 2015 concluded that Dublin Airport had significant market power, there has never been a case or concern of market abuse from Dublin Airport.

5.1.6 As ACI has recently outlined[9] there is increasing evidence that there is effective competition in the marketplace for providing airport service, particularly for airports serving airlines that operate from multiples bases and/or multiple hubs. These airlines can switch their aircraft between bases and routes. As a result, an airport facing a small number of large buyers may also face a disproportionate response to any change in airport charges.

[9] ACI, Re: Consultation paper on the COVID-19 price regulation response for airport charges at Dublin Airport (CP3/2020), August 2020

5.1.7 Given the short time period for this review and the fact that there is still a lot of uncertainty in the market, Dublin understands that this is not the optimal time for such a review of the regulatory framework. However, we would expect such a review to be undertaken ahead of the next price control period in 2026.

5.2 Regulatory Model Risk Allocation

5.2.1 To date, the risks of deviations from ex ante forecasts have largely been allocated to Dublin Airport, according to principles of incentive-based regulation.

- Dublin Airport can outperform by reducing its costs, or by increasing the level of commercial revenue or the number of passengers by more than is forecast ex ante.
- Dublin Airport bears the risk of underperformance in the event that its costs are higher, or its traffic or commercial revenue are lower than forecast.
- Users benefit from outperformance over time as more challenging assumptions (and thus lower prices) are built into subsequent price reviews.

5.2.2 According to the Commission, the framework in place at Dublin Airport has worked well to date and has been supported both by the airport and users[10] as it creates strong incentives for Dublin Airport to efficiently manage its costs, and to grow traffic and commercial revenue. However, as a result of the uncertainty faced by the aviation industry, the Commission is considering whether the current approach to risk allocation remains appropriate, or whether within-period risk-share mechanisms should be introduced.

Evaluation of mechanisms for the next regulatory period

5.2.3 If any of the mechanisms proposed by the Commission were to be introduced, the timing of the adjustment of charges is a crucial aspect to consider. The application of the sharing mechanisms can result in tariff adjustments either during the price control period or at the beginning of the following period. The first approach has the advantage of addressing any shocks creating cashflow issues for the regulated entity in a timelier manner. For this reason, it is typically looked upon positively by rating agencies and investors. However, it can lead to significant within-period tariff fluctuations, including tariffs potentially increasing when traffic is low and tariffs reducing when traffic is high. For example, if a risk-share mechanism had been in place at Dublin Airport during 2020/2021, tariffs would have significantly increased due to the reduction in traffic by over 70%. It is unlikely that such an increase in tariffs would have been possible. As such, the design of any mechanism would need careful consideration to ensure that it does not merely act to cap upside, while leaving downside risk with the airport.

5.2.4 Indeed, as demonstrated by the COVID-19 pandemic, risk-share mechanisms are not the right tool to address extreme deviations from forecasts. Airports that had these mechanisms in

[10] Commission for Aviation Regulation (2022), 'Third Interim Review of the 2019 Determination on Airport Charges at Dublin Airport – Methodological Consultation and Issues Paper', 4 February, p. 20–21.

place still needed to suspend or re-open existing price controls given the extent of the shock. Price control re-openers are a more suitable way to protect from the 'unknown unknowns'.

5.2.5 If a risk-share mechanism is introduced, then it would also be important to consider implications for other areas of the regulatory framework.

Dublin Airport's Position on Risk Allocation

5.2.6 Dublin Airport's preferred approach for 2023–2026 is for the Commission to set an ex-ante commitment to re-open the determination if and when a pre-defined level of variance from forecasts materialises, while maintaining the allocation of risk currently in place. Another potential approach to mitigate the consequences of extreme deviations from forecasts under exceptional circumstances is RAB reconciliation. As the lost revenues are dealt with through the RAB rather than charges, this approach has the advantage of smoothing price increases over the lifetime of the assets, and the immediate impact on prices is minimised.

5.2.7 While we consider that the current approach to risk-sharing should be retained for this regulatory period, this is an important issue that could be re-considered at the next regulatory review alongside a broader review of the regulatory framework. Further detail to support this position is outlined in Appendix 1 Oxera Report on Risk Share.

5.3 RAB Reconciliation

5.3.1 Dublin Airport experienced severe losses in revenue in 2020 and 2021 due to COVID-19 where the loss of revenue meant that Dublin Airport was unable to recover its operating expenditure, let alone earn the level of revenue required to recover depreciation, debt costs and a return for equity investors. This is unprecedented and if Dublin Airport is expected to bear the full revenue impact of this demand side shock, then this will call into question our ability to recover efficient investment in the airport infrastructure.

5.3.2 Consequently, if the airport is expected to bear the full revenue impact of the COVID-19 pandemic, there are likely to be negative consequences for our longer-term investment prospects and how debt providers assess the risk of our business.

5.3.3 We believe that it is now imperative that the Commission puts in place a measure to address the losses which occurred due to the exceptional circumstances of recent years.

5.3.4 We propose that the Commission should undertake a RAB reconciliation as part of the 2022 regulatory review where the revenue losses in 2020-22 resulting from COVID-19 (in particular, unrecovered operating costs and debt costs) should be recoverable in future periods via a specific adjustment in the opening RAB for 2023.

5.3.5 We note that such assessments are currently under discussion for a number of airport operators across Europe and that the UK CAA has already acted to provide an explicit RAB

adjustment to allow Heathrow Airport to recover some of the lost revenue resulting from the pandemic.

5.3.6 If the Commission were to adopt such a RAB adjustment this would have the following potential benefits

- It would demonstrate the Commission's commitment to the recovery of capital invested in the RAB—this would benefit customers in the long run where it would provide investors with the confidence that they will be able to recover their investments, and therefore lead to a reduction in the cost of capital. The integrity of the RAB is fundamental to securing long-term investment in the airport.

- A smoothing of price increases over the life of the assets—the RAB provides a flexible tool for smoothing revenue recovery over time. By dealing with the lost revenues through the RAB, recovery can be spread out and the immediate impact on prices can be minimised.

Thessaloniki Forum Position

5.3.7 In the Thessaloniki Forum paper on Cost Recovery[11] it was acknowledged that as a result of the impact of the COVID-19 pandemic on the aviation industry, most ISAs took actions under "exceptional circumstances". It reported that these actions taken in relation to the COVID-19 pandemic varied considerably, where some countries introducing an initial raft of measures to combat the effects of the pandemic and others introducing their measures at different times across the period.

5.3.8 It is therefore clear that given our current circumstances in the aftermath of the COVID-19 pandemic there is regulatory precedent and acceptance among regulators as to the need for appropriate regulatory interventions to aid recovery in the airport sector during this time of crisis.

5.4 Treatment of Sustainability Capex

5.4.1 Dublin Airport believes that in order to achieve the targets and policies of the Government on aviation, climate change and sustainable development, remuneration of sustainability related capex in the next Determination should be accelerated such that this investment does not dilute Dublin Airport's key debt metrics. Full details of our proposal in this regard were outlined in the Dublin Airport Response to CP1/2022 (The Commission's Methodological Consultation and Issues Paper for the Review).

[11] Thessaloniki Forum of Airport Charges Regulators, **Airport charges in times of crisis**, January 2022**.**

5.5 Uncertainty Mechanism

5.5.1 In the 2019 Determination, the Commission introduced an operating cost pass through mechanism. This was to allow for certain unanticipated operating costs outside the control of Dublin Airport, to feed through to the price cap within the regulatory determination period. The costs eligible for recovery under this scheme was limited to

- Local Authority Rates applicable to the regulated entity and not rechargeable.
- Direct charges set out in new or amended primary or secondary legislation, which are outside the control of Dublin Airport.

5.5.2 Dublin Airport requests the inclusion of this measure in the price cap formula for the regulatory period 2023-2026. While we are supportive of the current structure and application of the mechanism, we are requesting that the Commission potentially extends the application of this scheme to include a broader range of non-payroll costs that are beyond the direct control of the daa.

5.5.3 Dublin Airport believes that a broader range of non-controllable costs should be included in the cost pass through mechanism in order to safeguard the airport from excessive risk from spiralling operating costs which are beyond the company's control. For example there is currently an exceptional high degree of risk for the airport around energy and security related costs.

Regulatory Model Chapter Summary:

- Call for a review of the current form of price cap regulation at Dublin Airport and for consideration of the use of viable alternatives such as price monitoring going forward.
- If the current price cap model is retained, need for an overhaul of this model to introducing certain modifications which will allow us to progress our statutory obligations and further our commercial mandate.
- Looking for an ex-ante commitment to re-open the determination if and when a pre-defined level of variance from forecasts materialises, while maintaining the allocation of risk currently in place.
- Calling for a RAB adjustment in 2023-2026 to allow for a recovery of exceptional losses in 2020-2022 related to COVID-19.
- Seeking acceleration of the remuneration of sustainability related capex in 2023-2026 such that this investment does not dilute Dublin Airport's key debt metrics.
- Requesting extension of the scope of the cost pass through mechanism to include a broader range of non-controllable costs.

06 Service Quality & PASSENGER FOCUS

DublinAirport

6. Service Quality and Passenger Focus

6.1 Quality of Service Offering

6.1.1 While often not considered a fundamental economic building block, Service Quality Metrics (SQMs) need to be given due consideration by the Commission due to correlation they have with expenditure, passenger growth, infrastructural development, and the overall regulatory approach. We are comfortable with expectations being built into the pricing model. However, as we discuss below and in Appendix 2, high customer service levels come with a cost and trade-offs which need to be considered, especially around opex.

6.1.2 Service quality at Dublin Airport, measures and reflects the level and quality of services Dublin Airport offers our customers, from airlines to passengers. Customer satisfaction is central to our quality of services, which through objective and subjective measurements, helps drive performance and delivers competitive services to passengers.

6.1.3 Dublin Airport strive to focus on a programme of continuous improvement in our quality of service inspired by our customer centric approach. Dublin Airport's customer service aspirations are embedded in our prior experience and in our future goals. These goals are aimed at being able to adapt our service offering to the change in need of our customers as highlighted in Chapter 3.

6.1.4 As we move into a post COVID-19 world, we see increasing service expectations from both passengers and airlines, and the possibility of regulator-imposed constraints on aeronautical charges, which means that Dublin airport, and many other large, regulated airports globally are continually challenged in a drive for efficiency, service quality, and passenger growth. Being able to focus operating expenses and investments on the capability areas that matter most is critical to meeting these challenges.

6.1.5 Activities representing the essential capabilities that allow Dublin Airport to provide a unique and sustainable position in its market deserve significant investment. These activities allow us to deliver a high value proposition to customers and aligns with both the Commission and Dublin Airport's statutory objectives pertaining to "quality", "security" and "development". By contrast, capabilities that are necessary to keep the airport running but that don't make a big difference to airlines or passengers should be handled as efficiently as possible. A higher opex per passenger can reflect factors such as higher service quality and security standards.

6.1.6 Historically, the base level standard has been set by the Commission at a 'very high' level, typically 8-9/10, with little scope for 'average' performance but no explicit costs being taken into account.

6.1.7 Some of the metrics set by the Commission could be seen to unintendedly overlap, especially that of the security queue time penalty and passenger satisfaction. Not only does a queue time of over 30minutes lead to a financial penalty, but also impacts the subjective metrics

associated with our passenger experience, service offering. It is important to note, that the regime does not lay any emphasis or recognition on the priority of passenger safety.

6.1.8 Over the years, the Commission has sought to pursue a 'financial penalty' based approach when it comes to service quality rather than incentivising the airport through a commonly seen rebates and bonuses-based approach. In continuing with a financial penalty model, the Commission must be aware and give consideration to the impact this has on opex and capex allowances.

6.1.9 It is important to ensure a consistent joined up approach between the expectations of safety and security regulation. This must be the cornerstone for process, investment and economic regulation within the designated functions of the new 'IAA'.

6.1.10 Dublin Airport's quality of service can be broken down into subjective and objectives measurements, across four key business areas:

TABLE 2: QUALITY OF SERVICE AREAS

Quality of Services	
Business Area	**Measurement**
Security Queues	Objective
Assets and Baggage	Objective
Person of Reduced Mobility (PRM)	Objective
Passenger Satisfaction	Subjective

6.1.11 At Dublin Airport our objective measurements are impartial, usually quantifiable using outcome recorded data from one of our technological systems. On the other hand, our subjective measures look at what people say and think about their passenger journey. Dublin Airport has a history of using this information to quantify feedback on passenger experience. This can include using a survey to answer open ended questions, ranking an experience based on feelings, and more.

6.2 Review of Penalties v Bonuses / Rebates

6.2.1 As part of our regulatory programme, Dublin Airport must meet service quality targets set by the Commission. When considering the objectives the Commission takes in setting service quality metrics, we believe the focus should be to incentivise Dublin Airport to achieve efficient cost levels and meet passenger's changing expectations in a post COVID-19 landscape.

6.2.2 Incentivising performance at the airport does not mean rewarding the airport for meeting targets or providing a service that stakeholders do not want or need, just to seek financial returns. It means going 'above and beyond' passenger and airline expectations, by far

exceeding metrics, or by providing a beneficial service(s) that increase performance of its users. This is about 'outperforming' not just performing.

6.2.3 The current regulatory framework in place, includes metrics with no reward for outperformance but penalties for under-performance. We believe this is an unfair balance that does not incentivise Dublin Airport in exceeding its services offered to stakeholders nor drive innovation in service delivery.

6.2.4 In the 2019 Draft Determination, we appreciated that the Commission did explore amending a minority of metrics so that metrics were not so one dimensional. However, the proposed amendment was essentially a waived penalty, as opposed to an incentive that would reward the airport.

Benchmarking Aviation

6.2.5 When considering the application of service quality bonuses versus rebates, Dublin Airport has reviewed peer airports processes to garner relevant comparable insights. The CAA introduced a 'Service Quality Rebate Scheme' at LHR, that:

- The 'airline community' were in favour of the SQRB scheme which has worked well and driven the right behaviours.
- The maximum amount of rebates that could be paid is 7% of airport charges.
- The scheme includes a bonus element on passenger satisfaction measures to reward high performance that benefits passengers.

6.2.6 Aena, Aéroports de Paris and Aeroporti di Roma, include financial rewards in their service quality scheme. Paris-Orly Airport has numerous service quality metrics associated with availability of equipment, compliance, and service quality. There are financial incentives associated with these metrics. In Rome-Fiumicino Airport, both penalties and bonuses are associated with service quality.

6.2.7 Aéroports de Paris implements their SQRB regime, by focusing on three 'Excellence' Indicators:

- Satisfaction concerning transit.
- Overall satisfaction for departures.
- Overall satisfaction for arrivals.

6.2.8 When looking further afield, Auckland International Airport (AIA) New Zealand, uses an incentivised approach to encourage improved efficiency and provide services at a quality that reflects consumer demands.

Benchmarking in other Regulated Industries

6.2.9 Ofgem use a symmetric incentive structure, where the 'bonus' rate for beating the annual target is less than its penalty rate for failing to meet target. The bonus earnt is subject to a natural cap by virtue of the natural limit to annual availability. Whilst the annual penalty is limited to mitigate investor risk, the residual penalty may be spread over several years.

6.2.10 Ofgem use a model known as RIIO (Revenue = Incentives + Innovation + Outputs). This is a performance based regulatory model created by the UK's regulator. The RIIO model seeks to reward utilities for innovation and for delivering outputs that meet the changing expectations of consumers.

6.2.11 Ofwat, the UK's water regulator uses an Outcome Delivery Incentive (ODI), which incorporates SQRBs. In the water sector in the UK, some companies have outperformed and earnt net bonuses from ODIs while others have underperformed and incurred net penalties.

6.2.12 We believe a bonus incentivised scheme, would allow Dublin Airport the scope to outperform financially in the future and encourage innovation. We request the Commission considers the option of implementing bonus rebates, that would be in line with achieving the targets / metrics proposed in.

6.2.13 As we come out of the COVID-19 pandemic, where passengers have new values and expectations of the airport, we believe this is a great opportunity to bring in change, that can allow Dublin to excel in its high-quality services to stakeholders.

Proposition for the implementation of a Service Quality Rebates and Bonus Centric Scheme (SQRB)

6.2.14 In our view, the Commission is missing an opportunity by not allowing a bonus incentivised scheme, as we believe they could give Dublin Airport scope to outperform financially in future and encourage innovation.

6.2.15 We request that the Commission considers an SQRB regime for all our SQMs, however, we believe this is specifically applicable when reviewing the security queue time metric.

6.2.16 When considering queue times metrics, instead of only penalising for going over 30minutes 100% of the time, we believe the Commission consider the option to incentives Dublin Airport when queue times stay below a certain period for a certain % of time. This approach is used in both London Gatwick and London Heathrow Airports.

6.3 Summary of Dublin Airport's Service Quality Metrics Proposition

6.3.1 Below is a summary of our proposition for 2023-2026 SQMs. A detailed explanation and analysis of both subjective and objective measures can be found in Appendix 2 to this document.

TABLE 3: SUMMARY OF DUBLIN AIRPORT SQM PROPOSITION

Dublin Airport's Service Quality Metrics Proposition / Considerations		
Assets & Baggage		
Metric	**2019 Determination**	**Proposal 2023-2026**
T2 Lift, Escalator & Travelator Monitoring	In 2021: 98% available, on average across units. From 2022: 99%.	98% available from H2
Self Service Kiosk and Baggage Drop Machines	99% available on average	98% available from H2
FEGP	From 2021, for new units, 93.5% available on average in the first year and 99% thereafter.	98% available from H2.
AVDGS	From 2021, for new units, 93.5% available on average in the first year and 99% thereafter.	98% available from H2.
Baggage – Outbound and Inbound.	On completion of HBS3, the outcome of delivering arriving and departing bags should be available within 30 minutes of an airline's request.	When considering this metric, we are asking the Commission to consider the fact full baggage system will not be available to DAP until end of Q1 2023 resulting in reduced capacity and resilience for the T1 area.

Dublin Airport's Service Quality Metrics Proposition / Considerations		
PRM		
Metric	**2019 Determination**	**Proposal 2023-2026**
Maximum wait time for assistance departing passengers	Pre-Advised 95% within 15 min. 100% within 20 min. Not Pre-Advised 98% within 20 min. 100% within 30 min.	Pre-Advised 92% within 15 min. 97% within 20 min. Not Pre-Advised 92% within 20 min. 97% within 30 min.
Maximum wait time for assistance arriving passengers	Pre-Advised 95% within 15 min. 100% within 20 min. Not Pre-Advised 98% within 20 min. 100% within 30 min.	Pre-Advised 92% within 15 min. 97% within 20 min. Not Pre-Advised 92% within 20 min. 97% within 30 min.

Dublin Airport's Service Quality Metrics Proposition / Considerations		
Security Queue Times		
Metric	**2019 Determination**	**Proposal 2023-2026**
Maximum Security Queue Time	<20 minutes for less than 70% of the time but less than 30 minutes 100% of the time.	<20 minutes 70% of the time. <30 minutes 98% of the time.
	Is equal to or greater than 30 minutes but less than 45 minutes, at any time.	Is equal to or greater than 30 minutes but less than 45 minutes, at any time.
	Is equal to or greater than 45 minutes, at any time.	Is equal to or greater than 45 minutes, at any time.

Dublin Airport's Service Quality Metrics Proposition / Considerations Passenger Satisfaction Metrics		
Passenger Care		
Metric	**2019 Determination (Revised 22)**	**Proposal 2023-2026**
Additional Assistance	9.0	9.0
Helpfulness of Security Staff	8.5	8.5
Helpfulness of Airport Staff	8.5	8.5
Cleanliness of terminal	8.5	8.5
Cleanliness of toilets	8.0	8.0
Overall satisfaction	8.5	8.5
Departure gates	8.0	8.0
Walking distance	7.5 (2019 Metric Removed).	Replace with Ease of Movement
Ease of Movement	8.0 (New Metric).	8.0
Passenger Information		
Finding your way around	8.5	8.5
Flight information screens	8.5	8.5
Ground transport information on arrival	8.0 (2019 Metric Removed).	Proposal to change approach to this metric in one of two ways: Establish areas of importance to passengers, then set metric. Change in methodology of data collection.
Passenger Facilities and Services		
Facilities for Passengers who require additional assistance	9.0	9.0

Dublin Airport's Service Quality Metrics Proposition / Considerations Passenger Satisfaction Metrics		
Wi-Fi	8.5	8.5
Availability of trollies	8.5	8.5
Sense of Safety for Health	8.0 (New Metric)	Added for monitoring in 2022, proposal not to be included from 2023 onwards as target, but to monitor going forward.

Service Quality Chapter Summary:

- Service quality at Dublin Airport, measures and reflects the level and quality of services Dublin Airport offers customers, from airlines to passengers.
- At Dublin Airport our objective measurements are impartial, usually quantifiable outcome recorded data using one of our technological systems. Our subjective measures look at what people say and think.
- We would like to ask the Commission to consider an SQRB regime for all our SQMs, based on the examples provided in this chapter.
- We would like to ask the Commission to review all proposed metrics for each business area under our quality of service regime as per Section 6.3.
- Metrics are discussed in greater detail in Appendix 2 of this document.

07 Passenger FORECAST

DublinAirport

7. Passenger Forecast

7.1 Overview

7.1.1 As we wrote in our response to the Commission's recent Issues Paper, passenger forecasts are a central building block in a determination, as they are the denominator in the price cap calculation. They also have a direct impact on other building blocks.

7.1.2 The calculations for the price cap, requires traffic forecasts to set targets for passenger numbers, commercial revenues, and operating expenditure. The main driver for commercial revenues is passenger numbers, which in return is a key component in determining the maximum level of airport charges.

7.2 Impact of COVID-19 on Travel

7.2.1 The pandemic has had a devastating impact on traffic at Dublin Airport. In 2019, Dublin Airport had a record year with 32.9m passengers passing through the terminals. This growth slowed into 2020, but there was still a modest 1.7% year-on-year growth for Jan/Feb 2020. Prior to the pandemic, it was anticipated and expected that traffic growth in 2020 would slow down.

7.2.2 Dublin Airport was disproportionately hit by the downturn in traffic. Dublin Airport dropped from 14th in the Top 25 Airports in 2019 down to 22nd in 2021. Only UK airports had a lower % of 2019 passenger numbers than Dublin. Traffic in 2020 finished at 7.4 million for the full year, with 5.2 million of this delivered in Q1. This was a decrease of -78% in 2019. 2021 finished slightly better than 2020 at 8.5 million passengers, a growth of 14% vs 2020, but still -74% down vs 2019.

7.3 Traffic Risks

7.3.1 The demand environment is still hugely volatile with several downside risks to traffic outweighing any potential upside. There remains a significant possibility that one or a number of these risks will materialise and cause an impact on Dublin Airport's traffic forecast for the period. Therefore, any forecast should adjust for these potential downsides, or any upside should be offset.

Inflation

7.3.2 Inflation in the Irish economy is expected to rise to 8.5% or higher into the Summer, a level not seen since the early 1980s. In their latest quarterly bulletin, the Economic and Social Research Institute (ESRI) warned that the cost-of-living squeeze will see incomes in real terms fall by an average of 2% this year.

7.3.3 In its Winter 2022 outlook, the EU projects an average Irish rate of inflation of 4.6% this year, which is higher than the 3.5% rate it forecasts for the eurozone. It is also higher than the 3.9% rate it sees for the whole of the EU this year.

Fuel

7.3.4 The impact of the increased cost of fuel will have a disproportionate effect on airlines as this continues. Depending on the fuel hedging policy, airlines could have cost certainty for 2022 (and part of 2023), but outside of that, the volatility of the fuel price could cause certain routes and/or lines of flying to become unviable.

7.3.5 According to the HSBC's European Airlines research paper from the 3rd of March 2022, it is seen that both of Dublin Airport's biggest customers are hedged 60% (IAG) and 75% (Ryanair) for FY22/23. There are other carriers who do not have a similar policy, for example, SAS are not hedged at all, and Finnair have 8% of their fuel hedged FY22/23.

Eastern Europe

7.3.6 Although Dublin Airport's direct exposure to the Ukraine crisis is minimal in terms of capacity (85k seats to Ukraine/Russia were on sale in 2022 and 71k passengers travelled to/from Ireland to/from Russia in 2019), there is a risk that with further escalation into Eastern Europe, this could have a larger direct impact on Dublin capacity. In 2022, there were 1.6m seats on sale, which equates to c. 5% of 2019 capacity. Eastern European load factors are also one of the strongest performing regions (both in 2019 and throughout the pandemic), so there is potential for a further drop in the airport's total load factor if this crisis continues.

FIGURE 14: EUROPE REGION LOAD FACTOR BY MONTH

COVID-19

7.3.7 While restrictions have been lifted in most European countries, Ireland is in the midst of another COVID wave, albeit not to the extent of previous years. Thankfully, this wave has not resulted in a significant increase in deaths. In January, the impact of another COVID variant was seen with Omicron having a large effect on capacity and air travel demand.

7.3.8 The World Health Organisation (WHO) have recently stated that, while the latest variant is not as dangerous as the previous variants, there is still potential for the next variant to be stronger and more hazardous to the public.

Capacity Issues

7.3.9 Airports around Europe are currently finding it difficult to resource back to pre-pandemic levels and there has been an unfortunate number of delays and capacity issues. Dublin Airport has had its own security issues, but similar problems, with larger delays have been happening in airports such as Manchester and Heathrow. For Summer 2022, Frankfurt have triggered a local rule, which asks airlines to voluntarily reduce capacity by 5%-10% to enable the airport to deliver the Summer without unacceptable delays[12]. There is a possibility that other airports could take similar action, which could have a direct or indirect impact on Dublin Airport throughput.

Brexit

7.3.10 It was noted in Dublin Airport's 2019 Regulatory Proposition that there are significant risks presented by Brexit: Depreciation of sterling, Business traffic & trade and travel restrictions/disruption. The full impact of Brexit on the aviation industry is still not fully known due to the effect of the pandemic. However, the United Kingdom is still the number one region for Dublin Airport and there are still potential threats to the traffic forecast. It is still worth noting that in the two years prior to the pandemic, there was no growth in the market, despite robust economic growth in both economies.

Business Traffic

7.3.11 There is still uncertainty surrounding the return of business traffic. There are numerous forecasts available, with GBTA forecasting a full recovery by 2024[13], while WTTC[14] are not so optimistic reporting, only a modest boost for business travel with global business travel spend rising 26% this year will be followed by a further rise of 34% in 2022.

7.3.12 This comes in the wake of a 61% collapse in business travel spend in 2020, following the imposition of extensive travel restrictions with considerable regional differences in the bounce back around the world.

Planning Restrictions

7.3.13 Dublin Airport is in the middle of a relevant action planning process with the Aircraft Noise Competent Authority (ANCA), a unit of Fingal County Council. This planning action is in relation to noise restrictions at night in Dublin Airport. ANCA have currently released their draft decision, with the final decision due in Summer 2022. There is potential that the decision by

[12] https://fluko.org/wp-content/uploads/2022/03/Temporary-reduction-of-capacity-summer-2022.pdf

[13] https://www.gbta.org/blog/from-setback-to-surge-business-travel-expected-to-fully-recover-by-2024/#:~:text=Recovery%20will%20continue%20into%202023,pandemic%20spend%20of%20%241.4%20trillion

[14] https://wttc.org/News-Article/Business-travel-spend-set-to-reach-two-thirds-of-pre-pandemic-levels-by-2022-reveals-new-report-from-WTTC#:~:text=According%20to%20the%20new%20report,rise%20of%2034%25%20in%202022.

ANCA could significantly impact the base carrier operation at Dublin Airport and result in a decrease in traffic.

Pent-up Demand

7.3.14 Summer 2022 is the first season since Summer 2019 where there have not been any restrictions imposed on air travel (to-date). Almost one million passengers (992,000) travelled through Dublin Airport in January, a -53% drop when compared to pre-COVID levels in January 2020, but an increase of 778,000 passengers when compared to January 2021.

7.3.15 As Dublin Airport continues to build back following the pandemic, this summer will see more than 1,300 flights to Europe each week, in addition to 700+ flights to Great Britain, 200+ flights to North America and almost 40 to the Middle East and Africa. Therefore, there is significant pent-up demand and, similar to the traffic stimulated by the government funding, it is difficult to determine whether this traffic will be maintained into 2023.

Load Factor Performance

7.3.16 To-date in 2022, load factor has been erratic with special events such as school mid-term and St Patrick's Day showing strong load factors. However, outside of these times, load factor has been significantly below 2019 levels. As peak summer approaches, Dublin Airport will continue to learn from the latest information that the recovery brings, but there is still noise and uncertainty in the numbers.

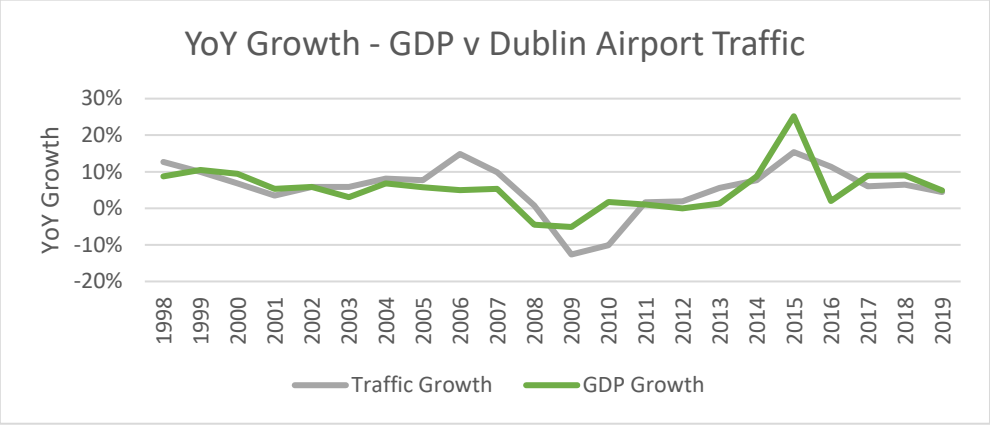
Capacity Constraints

7.3.17 Dublin Airport have returned to close to Summer 2019 levels of overnight aircraft in Summer 2022. While this is manageable from a stand plan perspective in 2022, it is something that should be considered in any growth projections into Summer 2023 and beyond. There will be no new stands delivered prior to 2024 at the earliest, so incremental based aircraft growth will need to be managed.

7.4 GDP as the Primary Explanatory Variable

7.4.1 In previous determinations, the Commission used a simple linear regression model that solely relied on Irish GDP as the explanatory variable to calculate the traffic forecast for Dublin Airport. Although Dublin Airport had reservations using only this variable, the modelling showed that it was a good fit over the period 1997-2019, with traffic in Dublin growing at a CAGR of 5.4% and GDP growing at 5.2%.

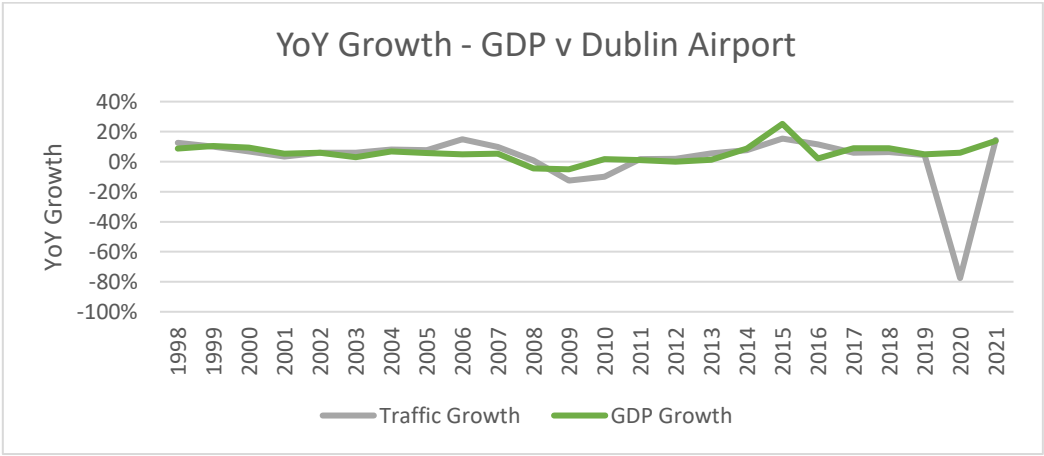
FIGURE 15: YEAR ON YEAR GROWTH – GDP V DUBLIN AIRPORT TRAFFIC (1998-2019)



7.4.2 The Commission used the years 1997-2018 in the previous determination and the results of the log-log regression indicated a good fit with an R-squared correlation coefficient of 0.97. Doing the same regression for the period 1997-2019 also results in an R-squared of 0.97.

7.4.3 During the pandemic years of 2020/2021, while Dublin Airport traffic was -78% and -74% vs 2019 traffic, Irish GDP grew by c. 6% in 2020 and c. 13% in 2021.

FIGURE 16: YEAR ON YEAR GROWTH – GDP V DUBLIN AIRPORT TRAFFIC (1998-2021)



7.4.4 The anomalous pandemic years of 2020 & 2021 reduce the fit of the relationship between Dublin Airport traffic growth and Irish GDP. When these are included in the regression, the R-squared reduces to 0.07, which is a poor fit and unrealistic to use while calculating the traffic at Dublin Airport.

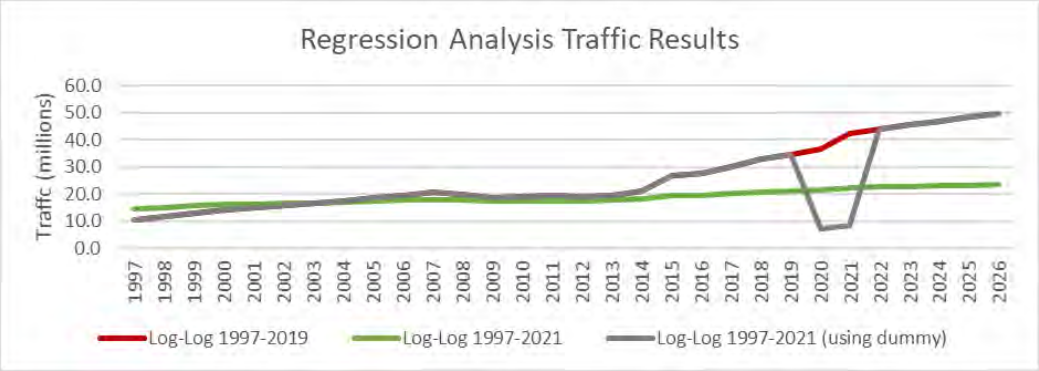
7.4.5 When undertaking their modelling, Dublin Airport considered introducing dummy variables for 2020 & 2021. However, this resulted in a full return to pre-pandemic traffic in 2022. Dublin Airport modelled 3 scenarios 1) 1997-2019, 2) 1997-2021 and 3) 1997-2021 (with dummy variables for 2020 & 2021) and the result of the forecast for the years 2022-2026 were deemed

to be either too high with forecasts reaching c. 50m by 2026 or too low, with 2026 only reaching 23.4m.

TABLE 4: MODELLED SCENARIOS

	2023	2024	2025	2026
Log-Log 1997-2019	45.6	47.0	48.4	49.9
Log-Log 1997-2021	22.8	23.0	23.2	23.4
Log-Log 1997-2021 (using dummy)	45.6	47.0	48.4	49.8

FIGURE 17: REGRESSION ANALYSIS TRAFFIC RESULTS



7.4.6 Dublin Airport, therefore, concluded that solely relying on the GDP modelling for the years 2022-2026 is no longer reasonable.

FIGURE 18: REGRESSION 1997-2019

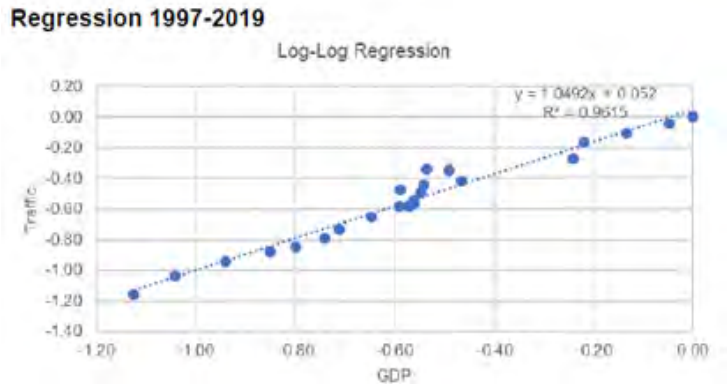
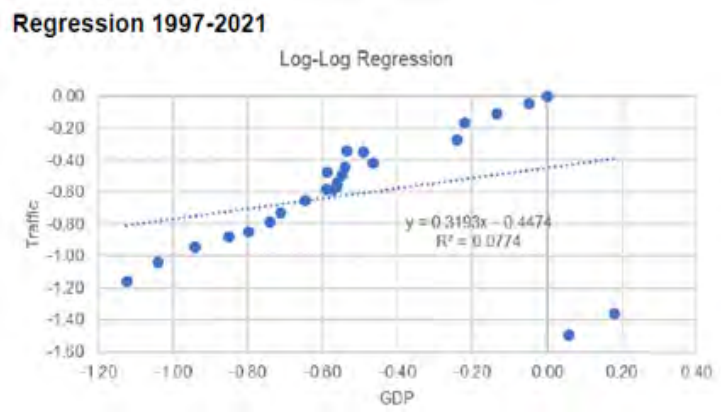


FIGURE 19: REGRESSION 1997-2021



7.5 Mott MacDonald Review of GDP Model

7.5.1 Dublin Airport commissioned Mott MacDonald to follow up on their 2019 review of the traffic forecast. They concluded that GDP is not a reliable explanatory variable because Irish GDP can be distorted by the pass--through of profits by foreign companies established in Ireland and, that, while the economy grew in the pandemic hit years of 2020 and 2021, it does not reflect the reality of the Irish domestic economy and people's disposable income. Their modelling results backed up those of Dublin Airport

7.6 Dublin Airport Proposed Forecasting Methodology

7.6.1 We highlighted in our recent response to the Commission's Issues paper that in the 2019 Determination, passenger growth over the regulatory period was estimated using Irish GDP as the driver. Based on the impact of COVID-19, GDP has not been the primary driver in the last few years for obvious reasons. We believe the pace of return in different sectors, potential for further restrictions based on different country rules, and mix of passenger category/demographics will have a significant impact on traffic forecasting.

7.6.2 There is currently an exceptionally high level of uncertainty in the aviation market, and as such Dublin Airport's potential exposure to volume risk, revenue risk, regulatory risk, and country-specific risk for the period 2023-2026 is substantially increased. Dublin Airport's view is that the approach used in the 2019 determination is not appropriate at this time as the link between Irish GDP and traffic growth has been broken.

7.6.3 In a normalised environment, Dublin Airport has a robust forecasting methodology for medium- to long-term forecasting. This consists of forecasting by O&D, Transfer and Transit traffic.

7.6.4 For O&D traffic, Dublin Airport splits the traffic into several relevant markets and undertakes regression analysis to establish the historical relationship between traffic and various macro and socio-economic variables. Dublin Airport used available insights to understand the traffic make-up by region/route and this was considered when choosing the variables. The variables

with the best fit are used to predict the traffic growth by market. A sample of the variables used are:

- Economic growth, per country (i.e., GDP)
- Jet fuel prices
- Inflation rates (per country)
- Exchange rates
- Employment / unemployment rates (per country)
- Population (per country)
- National savings as a % of GDP (per country)

7.6.5 To calculate transfer and transit traffic, Dublin Airport used a combination of fleet forecasts and business intelligence to predict the traffic.

7.6.6 However, as with the GDP approach above, getting a good fit in the regression and/or forecast for each of these socio-economic variables is difficult. For example, while certain countries' GDP decreased, traffic decreased significantly more. Employment/Unemployment rates are not consistent. Jet Fuel prices are currently volatile due to the ongoing crisis in Eastern Europe. Therefore, Dublin Airport did not approach the forecast in the same way as in 2019.

7.6.7 The Commission proposed several methodologies in the Methodological Consultation and Issues Paper:

- A forecast with GDP as the driver as in the 2019 Determination
- A multivariate causal forecast
- Disaggregated forecasts by region
- A judgement-based forecast
- A long-term trend forecast
- Using industry forecast(s)
- A combination of forecast methodologies

7.6.8 Dublin Airport responded to this and commented on the suitability for each methodology.

7.6.9 Dublin Airport's forecast methodology is based on a combination of these

- Determine the baseline with a judgment-based forecast for 2022.
- Business intelligence to ensure a realistic output.
- Use a combination of industry forecasts.

7.6.10 Dublin Airport is continually monitoring the 2022 performance to-date. There is still a lot of volatility in the market with significant differences between peak days and off-peak days. Dublin Airport monitors the schedule and load factor performance to ensure that an accurate forecast for 2022 is developed. The current view is that 2022 outturn will be c. [redacted]m, which equates to [redacted]% of 2019 traffic.

7.6.11 Following that, Dublin Airport modelled the traffic using upper and lower capacity load factor variables. This was then put into a Monte Carlo simulation to get a view of traffic for the period 2023-2026.

7.6.12 For the capacity variable, Dublin Airport used the latest EUROCONTROL seven-year forecast (15th October 2021). From this forecast, the Terminal Navigation Service Units (TNSU) for Ireland were used. It showed that, by 2026, there would be a high of 116% and a low of 90%.

TABLE 5: TERMINAL NAVIGATION SERVICE UNITS

Terminal Navigation Service Units (Thousands)		2019	2020	2021	2022	2023	2024	2025	2026
Ireland	High	.	.	71	178	203	206	211	219
	Base	188	71	70	166	175	183	187	191
	Low	.	.	67	120	140	149	167	170
Ireland - % of 2019	High			38%	95%	108%	110%	112%	116%
	Base			37%	88%	93%	97%	99%	102%
	Low			36%	64%	74%	79%	89%	90%

7.6.13 The Monte Carlo simulation took the high EUROCONTROL forecast as the upper bound and the low as the lower bound for capacity for the period 2023-2026.

7.6.14 To calculate traffic numbers from these movements, Dublin Airport used its internal market intelligence on load factor to calculate the upper and lower limits for each year. Dublin Airport forecasts load factor to reach an average of 70% for 2022 (Dublin Airport was 13pts behind 2019 load factor for Q1). This was considered the lower limit. The upper limit used was the load factor from 2019, which was 83%. Each intervening year would not have a lower load factor than the previous year but would not exceed 2019 levels.

7.6.15 On average, the Monte Carlo simulation resulted in a forecast, for the years 2023-2026.

TABLE 6: MONTE CARLO SIMULATION FORECAST AVERAGE

	2023	*2024*	*2025*	*2026*
Traffic	[redacted]	[redacted]	[redacted]	[redacted]

7.6.16 The output from this model was then compared against the ACI Europe traffic forecast (13th October 2021) to ensure that the traffic from the Monte Carlo simulation output was not out of line with other industry analysis.

FIGURE 20: DUBLIN AIRPORT TRAFFIC FC AS % OF 2019 V ACI FORECAST

7.6.17 The results using the EUROCONTROL movement forecast along with an assumed Load Factor are in line with ACI Europe's latest available mid forecast for the period 2023-2026. Dublin Airport also benchmarked the output from the forecast with other industry forecasts and will continue to do so as more become available / are updated.

7.6.18 IATA released their latest forecast[15] on the 1st of March. This forecast covers the period 2022-2025 and calculates a full recovery by 2024 (105% of 2019 levels). However, this forecast has no downside built in for the increase in fuel prices or the conflict in Eastern Europe. It also calculates 2021 at 40% of 2019, while Dublin Airport finished 2021 at 26% of 2019 (8.45m).

7.6.19 If the variance between the IATA Europe outturn and the Dublin Airport 2021 outturn halves each year and there is an impact on demand due to the fuel prices / Eastern Europe of c. -3% (HSBC Global Research – European Airlines. 3rd March 2022), the IATA numbers are close to the Dublin Airport Forecast.

TABLE 7: IATA FORECAST NUMBERS

	2021	*2022*	*2023*	*2024*	*2025*
Europe – IATA					
Dub – IATA Adj					
DUB - CAR FC					

7.6.20 On the 24th of January, S&P published a research paper titled "A Volatile Recovery Ahead for European Airports", in which they released their passenger number estimates. Their view (prior to the Eastern Europe / fuel issues) was that passenger levels will get to a maximum of 65% in 2022 rising to the high case of 95% in 2024.

[15] IATA - Air Passenger Numbers to Recover in 2024

TABLE 8: S&P GLOBAL RATINGS' PASSENGER NUMBER ESTIMATES, AS A SHARE OF 2019 LEVELS

(%)	Current estimates versus 2019 actual
2021F	20-35
2022F	45-65
2023F	70-85
2024F	80-95

7.6.21 There are other forecasts released by industry at certain points in 2021:

- ACI World released a forecast in November 2021, with the international traffic forecasted to return to 2019 levels by 2024.
- Boeing released their Commercial Market Outlook[16] from 2021-2040, which forecasts a CAGR of 4% for this long-range period.
- Airbus has also produced its Global Market Forecast[17], which puts RPKs back at 2019 levels by 2024 and has an annual CAGR of 4% for the period 2019-2040.

7.6.22 All these industry forecasts provide a sanity check that the Dublin Airport forecast is in line with the high-level annual expert view. Therefore, the current projection for Dublin Airport remains as the output of the simulation. Dublin Airport believe that, while the baseline projection for 2023 is 23m, the true outturn would be lower than that without government funding and the 2-year pent up demand.

7.7 Airline Engagement on Traffic Volumes

7.7.1 On the 8th of February 2022, Dublin Airport engaged with airport users, asking airlines to provide their traffic forecasts for 2023-2026. This gave those that wished to, the opportunity for stakeholders to provide their latest traffic projections to Dublin Airport.

7.7.2 The purpose of our consultation was to help provide insight into airport users anticipated traffic forecasts for 2023-2026. Estimating the nature and shape of future passenger numbers is an essential input to the 2022 Regulatory Determination.

7.7.3 We asked airport users to respond answering the below questions:

TABLE 9: TRAFFIC FORECAST CONSULTATION (8TH FEBRUARY 2022)

No.	Category	Question
1	Traffic Forecast	Dublin Airport are requesting that airport users provide us with your traffic forecast for Dublin Airport for years 2023 – 2026?
2	Traffic Forecast	Please indicate the factors you consider most likely to affect your future levels of activity?

[16] https://www.boeing.com/commercial/market/commercial-market-outlook/
[17] Global Market Forecast | Airbus

3	General	Do you have any further comments or general observations in relation to any of the information contained in this document?

Responses

7.7.4 We received responses from 9 international airlines to our consultation. Subsequent to our consultation, we received detailed forecasting information from one Irish carriers. Airlines highlighted that they forecast their passenger volumes growing year on year between 2023-2026. When asked about factors that could likely impact future levels of activity respondents noted the below factors:

- Corporate demand return.
- Future COVID-19 variants.
- Travel restrictions.
- Support offered by the Airport Authorities.
- Airport connection opportunities.
- Economic growth.
- Disposable income.

7.7.5 Separately, Dublin Airport received a letter from Ryanair, where they outlined their range of forecasts for the years 2023-2026. They noted that these were subject to change based on variables including the level of daa's airport charges, government travel bans and travel restrictions arising from the pandemic:

- The centreline forecast reached [redacted]% of 2019 traffic by 2026
- The low was [redacted]% and the high was [redacted]% of 2019 traffic by 2026

FIGURE 21: RYANAIR TRAFFIC FC AS % OF 2019

[redacted]

[redacted]

7.8 2022 Forecast Benchmark

[redacted] Dublin Airport's current view of 2022 traffic outturn [redacted] of 2019 levels. The latest view from the majority of larger European airports is lower than this. [redacted]

7.8.2 The UK airports of Heathrow[18], Gatwick[19] and Manchester[20] are all forecasting traffic of 66% or less.

7.8.3 A number of airports have given rough guidance to 2022 traffic, i.e. Aeroporti di Roma have noted that their outlook for 2022 is that Fiumicino will be able to exceed 20 million passengers[21].

7.8.4 In March, Fraport announced that they will serve between 39-46 million passengers in 2022, which equates to 55%-65% of 2019 levels[22]. Zurich have also announced that they will have around 20 million passengers this year, corresponding to roughly two-thirds of the 2019 level[23].

FIGURE 22 2022 TRAFFIC RANGE ESTIMATES FOR DUBLIN V EUROPEAN AIRPORTS

[18] London's Heathrow raises 2022 passenger forecast to 52.8 million | Reuters
[19] Gatwick expects 3 million monthly passengers as losses narrow | Airline industry | The Guardian
[20] PowerPoint Presentation (greatermanchester-ca.gov.uk)
[21] news - AEROPORTI DI ROMA - Aeroporti di Roma (adr.it)
[22] Frankfurt Airport forecast to reach 55-65% of pre-pandemic passenger traffic in 2022 : The Moodie Davitt Report -The Moodie Davitt Report
[23] Financial year 2021: Challenging year with bright spots (flughafen-zuerich.ch)

7.9 Mott MacDonald Forecast

7.9.1 Dublin Airport commissioned Mott MacDonald to follow up on their 2019 review of the traffic forecast and to calculate their traffic forecast for the period of 2023-2026. They noted the difficulty in forecasting at this time and highlighted a number of traffic risks, such as:

- Emerging COVID-19 variants
- Unequal vaccine distribution globally
- Ongoing supply chain disruption
- Fuel price rises
- Ukraine conflict
- Risk of airline failure due losses incurred since 2020 combined with factors above

7.9.2 Mott MacDonald approached the forecast by calculating the 2022 traffic outturn based on published schedules and a forecast assumption. This process resulted in a forecast close to Dublin Airport's own forecast of [redacted] million passengers.

7.9.3 For the subsequent years, Mott MacDonald used the pre-pandemic regression trends to calculate the income elasticity, which was 1.01. This elasticity is the same as used by the Commission in the 2019 Determination. This elasticity was multiplied by the GDP growth (from IMF October 2021 World Economic Outlook update[24]) to calculate the forecast out to 2026. The results of which can be seen below.

[24] World Economic Outlook, October 2021: Recovery During A Pandemic (imf.org)

TABLE 10 MOTT MACDONALD FORECAST FOR DUBLIN AIRPORT: 2023-2026

Mott MacDonald Forecast	2023	2024	2025	2026
Passengers (m)	[redacted]	[redacted]	[redacted]	[redacted]

7.9.4 [redacted]

7.10 Summary of Dublin Airport Proposition

Dublin Airport Forecast	2023	2024	2025	2026
Passengers (m)	[redacted]	[redacted]	[redacted]	[redacted]

Passenger Forecast Chapter Summary:

- The calculations for the price cap, requires traffic forecasts to set targets for passenger numbers, commercial revenues, and operating expenditure. The main driver for commercial revenues is passenger numbers.
- [redacted].
- There remains a significant possibility that one or a number of these risks will materialise and cause an impact on Dublin Airport's traffic forecast for the period. Therefore, any forecast should adjust for these potential downsides, or any upside should be offset.
- In previous determinations, the Commission used a simple linear regression model that solely relied on Irish GDP as the explanatory variable to calculate the traffic forecast for Dublin Airport.
- Although Dublin Airport had reservations using only this variable, the modelling showed that it was a good fit over the period 1997-2019. Dublin Airport, therefore, concluded that solely relying on the GDP modelling for the years 2022-2026 is no longer reasonable.
- Dublin Airport's forecast methodology is based on a combination of these
  - Determine the baseline with a judgment-based forecast for 2022.
  - Business intelligence to ensure a realistic output.
  - Use a combination of industry forecasts.
- Dublin Airport's 2022 forecast is one of the highest out of the larger European Airports who have published their outlooks for the year.
- Dublin Airport commissioned Mott MacDonald to independently conduct a forecast for the period of 2023-2026, which was in-line with what Dublin Airport had forecasted.

08 Operating COSTS

DublinAirport

8. Operating Costs

8.1 Introduction

[redacted] Dublin Airport's operating costs have been forecast for the period 2022 to 2026. This forecast holds as a starting position the aftermath of the damage caused by COVID-19 to the Dublin Airport business and is characterised by an anticipated recovery from [redacted]

8.1.2 Dublin Airport made significant savings over 2020 and 2021 in response to the reduced revenues and increasing debt levels. As a result, the operation is under resourced for 2022 activities at the end of 2021 and will need to increase resourcing levels for summer 2022.

8.1.3 Despite [redacted] in new payroll and non-pay cost items and reflecting a reduction of [redacted] FTEs [redacted]%), the operating costs for 2022[25] are €[redacted]m lower than the cost levels in 2019. Overall, this reflects incremental efficiency savings of [redacted]% efficiency once the reduction in activity at Dublin Airport.

8.2 Opex benchmarking and Quality of Service

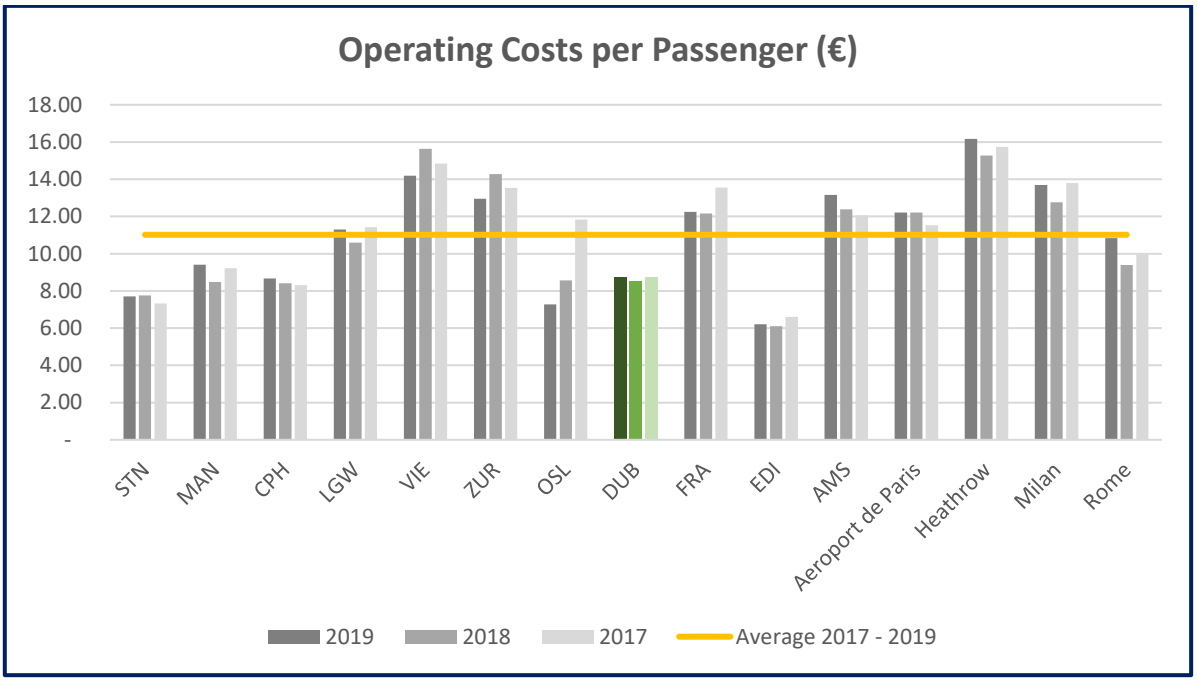
daa 2019 opex per pax benchmarking

8.2.1 Dublin Airport has carried out a benchmarking analysis of peer European airports across 2017 – 2019. While the analysis uses the simple average operating costs per pax and does not reflect the potential different operations at each airport (e.g., insourced retail and security at Dublin), it does demonstrate that Dublin was in the upper quartile of efficient airports in 2017 to 2019.

8.2.2 Benchmarking to other European airports shows that Dublin Airport's average operating cost per passenger of €8.66 was 21% cheaper compared to benchmark average operating cost per passenger of €11.02. Dublin Airport ranked 4th lowest cost airport, with London Heathrow at €15.73 as the highest and Edinburgh Airport as the lowest at €6.31.

[25] Normalised to exclude the benefit of government payroll supports in January - April

FIGURE 23: DUBLIN AIRPORT OPERATING COSTS PER PASSENGER 21% LOWER THAN AVERAGE



8.2.3 Cost per passenger is calculated using operating expenses excluding depreciation divided by annual passenger number. Relevant financial information was obtained from the published financial statements of other similar airports in Europe for financial years/ periods ended 2017-2019. There are 13 European airports included in this analysis. Financial information reported in currency other than Euro was converted using the average annual foreign exchange rate as published by the Central Bank of Ireland (CBI).

8.3 Opex response to COVID-19

Cost reductions in 2020 & 2021

8.3.1 In 2020, due to the COVID-19 pandemic and related travel restrictions, traffic declined by 78% compared to 2019. While passenger traffic improved slightly in 2021, from 7.2m passengers in 2020 to 8.5m passengers (+14%), it was still 74% below 2019. In line with the reduction in traffic, operating costs were reduced by 37% and 46% in 2020 and 2021 respectively, compared to 2019 levels (-17% and -21% respectively excluding government support).

8.3.2 In response to the COVID-19 pandemic, Dublin Airport made changes to its cost base in 2020 and 2021 as actions were taken to mitigate the losses caused by COVID-19.

TABLE 11: OPERATING COST 2019-2021

€'000	2019	2020	2021
Payroll Costs	173,991	143,805	[redacted]
Payroll Support		-33,899	[redacted]
Net payroll costs	**173,991**	**109,907**	[redacted]
Non-Pay costs excl rates	100,253	61,718	[redacted]
Rates costs	13,967	34,029	[redacted]
Rates waiver		-25,074	[redacted]
Net non-pay costs	**114,220**	**70,673**	[redacted]
Gross opex costs	288,211	239,551	[redacted]
Government supports		-58,972	[redacted]
Total net operating costs	**288,211**	**180,579**	[redacted]

8.3.3 Dublin Airport initiated a widespread right-sizing programme, anticipating future passenger traffic of c20mppa, which included a mixture of short term / one off actions, medium term actions and all the available government schemes to support wages.

8.3.4 Further explicit details on both payroll and non-payroll opex reduction measures are outlined in Appendix 4 Dublin Airport Operating Cost Forecast 2022-2026.

8.4 2022 Opex Cost Base

8.4.1 Dublin Airport's baseline operating costs for 2022 is expected to be €[redacted]m. This is €[redacted]m lower than the cost levels in 2019 despite €[redacted]m in new payroll and non-pay cost items and reflect a reduction of [redacted] FTEs ([redacted]%) in 2019. Overall, this reflects a [redacted]% efficiency over and above the reduction in activity at Dublin Airport.

TABLE 12: DUBLIN AIRPORT OPERATING COSTS 2017 TO 2022

	2017	2018	2019	2022	2022 V 2019	2022 V 2017
	€'m	*€'m*	*€'m*	*€'m*	*%*	*%*
Payroll Costs	-158.9	-163.9	-174.1	[redacted]	[redacted]	[redacted]
Non Pay Costs	-98.8	-104.1	-114.0	[redacted]	[redacted]	[redacted]
Total Opex	**-257.7**	**-268.0**	**-288.0**	[redacted]	[redacted]	[redacted]
				[redacted]		
FTEs	**2,499**	**2,614**	**2,714**	[redacted]	[redacted]	[redacted]

2022 payroll costs are gross of EWSS

Cost bridge 2019 Vs 2022 & efficiency gains: Payroll Costs & FTEs

8.4.2 Payroll costs in 2022 have been reduced by 7% compared to 2019 levels, despite national payroll inflation running at 10% and the Dublin Airport pension unfreeze coming into effect from 1 Jan 2020. This saving results from a 11% reduction in FTEs, and on an overall basis represents a 5% efficiency, when accounting for the change in activity and requirements in 2022.

FIGURE 24: DUBLIN AIRPORT PAYROLL COSTS 2019 TO 2022

8.4.3 Dublin airport's average cost of employment increased by [redacted]% due to the pension unfreeze from 1 Jan 2020. This increased the overall payroll cost, for the 2022 FTEs by €[redacted]m (see further detail in section 5.7). Further payroll increases due to increments over the period and anticipated pay inflation in 2022 have added a further €[redacted]m to the cost base. This reflects a real saving however as inflation has been running at a higher level than this, and Dublin Airport staff have missed one increment increase over the COVID period.

FIGURE 25: DUBLIN AIRPORT FTES 2019 TO 2022

8.4.4 The FTE reductions have saved a net total of €[redacted]m. Additional security requirements in summer 2022 have increase payroll costs by €[redacted]m ([redacted] FTEs). There is a €[redacted]m saving related to the reduction in passenger volume ([redacted] FTEs) plus a further €[redacted]m of savings ([redacted] FTEs) related to an efficiency gain compared to 2019.

8.4.5 The efficiency savings have been calculated by reviewing each cost line and comparing it with the expected reduction based on the level of activity (passengers / sales) appropriate to that area. Expected FTEs have been calculated by reflecting the passenger reduction between 2019 and 2022 and applying the relevant elasticity (see section 5) and know changes in requirements

Non payroll costs

8.4.6 Non payroll costs are forecast to be €[redacted]m lower in 2022 than in 2019. This is a gross saving of € [redacted]m when price changes of €[redacted]m and new costs of € [redacted]m are reflected. The € [redacted]m saving splits as a € [redacted]m reduction in line with volume, and a [redacted]% efficiency gain of €[redacted]m.

FIGURE 26: DUBLIN AIRPORT NON-PAYROLL COSTS 2019 TO 2022

8.4.7 Volume linked reductions have been made on PRM costs, Car Park Direct overheads, credit card / booking fees and lounge costs in line with reduced passengers and revenues.

8.4.8 Efficiency savings have been made across marketing, consultancy services and other non-pay costs with use of these cost lines being managed tightly before demand returns to more normal levels.

8.4.9 Price increases have had the most significant impact on utility costs (€[redacted]m) and for PRM services (€[redacted]m), reflecting the dramatic change in utility costs and the impact of pay and other inflation on the PRM costs. Smaller cost increases are being seen on lounge costs and the recently tendered car park direct costs (€[redacted]m in total), with the Local Authority rates rebate for Q1 2022 netting off against these.

8.4.10 New costs since 2019 total €[redacted]m and related to the outsourced cleaning in T1 (which resulted in a net saving of €m), the new Security Regulatory charge and COVID related costs.

2022 Operating costs – 2019 Determination and current forecast

8.4.11 Dublin Airport's opex cost in 2022 is forecast to be €[redacted]m or [redacted]% lower than the level determined in 2019 (€38m or 12% including glide path).

TABLE 13: DUBLIN AIRPORT 2022 OPEX – CURRENT FORECAST COMPARED TO 2019 DETERMINATION

[redacted]

Payroll Costs & FTEs

8.4.12 Payroll cost are down €[redacted]m or [redacted]%, reflecting a [redacted]% reduction in FTEs and a [redacted]% real reduction in average cost per employee. The [redacted]% reduction in FTEs is a [redacted]% efficiency on the level of activity now expected in 2022.

FIGURE 27: 2022 PAYROLL COSTS – CURRENT FORECAST COMPARED TO 2019 DETERMINATION

[redacted]

8.4.13 The FTE reductions have saved a total of €[redacted]m, with €[redacted]m ([redacted] FTEs) related to the reduction in volume and €[redacted]m ([redacted] FTEs) related to an efficiency gain.

FIGURE 28: 2022 FTES – CURRENT FORECAST COMPARED TO 2019 DETERMINATION

[redacted]

Non payroll costs

8.4.14 Non payroll costs are forecast to be €[redacted]m lower in 2022 than the 2019 determination set out. This is a gross saving of €[redacted]m when price changes of €[redacted]m and new costs of €[redacted]m are reflected. The €[redacted]m saving splits as a €[redacted]m reduction in line with volume, plus a further XX% efficiency gain of €[redacted]m.

8.4.15 Price increases, compared to the 2019 expectation for 2022, are seen in Utilities (€[redacted]m), PRM costs (€[redacted]m), Car Park direct costs (€[redacted]m) and Insurance (€[redacted]m).

FIGURE 29: 2022 NON-PAY COSTS – CURRENT FORECAST COMPARED TO 2019 DETERMINATION

8.5 Approach to Opex Review

8.5.1 A high-level overview of our approach, which is described in more detail in the rest of this section, is illustrated below.

8.5.2 Operating costs have been forecasted on a line-by-line basis using a granular breakdown of cost information:

- Total opex is split out across the 20 different cost categories (which match those used by the Commission in the 2019 determination).
- Within each cost item, there is a further breakdown across the payroll categories which are forecasted out by business unit and across the non-pay categories by prime account code.
- Costs have not been split out by location as was done in the previous determination. Cross terminal working/interoperability means the split of costs by location is less relevant for this review.
- Forecasting opex at this granular level gives the flexibility to apply different approaches and assumptions to different cost items/business units, which helps capture the fact that we would expect different costs items to evolve in different ways over time.

8.5.3 For pay items, the number of FTEs is forecast. There is then a separate exercise with respect to forecasting how the cost per FTE evolves over time. This approach enables separation of volume and price effects. For non-pay items, costs are forecast directly.

8.5.4 The approach is based on first forecasting a baseline (2022) to which we then apply wage inflation, volume related elasticity calculations (where relevant), bottom-up estimates and estimates of incremental costs and the CIP opex related costs.

Payroll Costs

8.5.5 Each payroll cost category splits into several business units that roll up into each payroll cost category. Payroll has been forecasted at this individual business unit level rather than the overall cost category to apply different approaches to the business units depending on what is most appropriate (elasticity based, bottom up or fixed).

8.5.6 The payroll has been forecasted using the methodology of a unit cost per FTE multiplied by the forecasted FTE for that particular year (by BU). The base year cost (2022) has been adjusted to show gross of the EWSS (employee wage subsidy scheme) and includes the expected payroll inflation for the year.

FTE unit costs

8.5.7 The unit cost per FTE uses the baseline 2022 payroll cost per FTE with an adjustment in each of the years 2023-2026 to take into account the effects of wage inflation of [redacted]% p.a. (please refer to section 5.6 of Appendix 4).

Volume/FTE forecast

8.5.8 The FTE's have been forecasted using either a pax related volume elasticity calculation (using 2022 as the baseline), a bottom-up analysis (through detailed understanding of the business) or a static/fixed approach (holding the baseline (2022) fixed). The elasticities used for all categories excluding security are as per the 2019 Determination (daa/Frontier analysis).

TABLE 14: ELASTICITIES USED IN DUBLIN AIRPORT FTE FORECAST

Cost Category	Business units	Approach	Elasticity
Security Staff	Airport Search Unit	Pax related elasticity	In lane ASU's: 1.0
	VCP	Pax related elasticity	0.20
	Other BU's	Fixed at 2022 levels	
Central Functions Staff	All BU's	Mix of: Fixed at 2022 levels/Bottom up analysis	
Campus Services Staff	Police	Fixed at 2022 levels	
	Fire	Bottom up analysis	
	Other BU's	Fixed at 2022 levels	
Airside Operations Staff	Stand and Gate allocation	Pax related elasticity	0.80
	FOD Control unit	Pax related elasticity	0.80
	Airside Management Unit	Bottom up analysis	
	Other BU's	Fixed at 2022 levels	
IT & Technology	All BU's	Bottom up analysis	
Facilities & Cleaning	APOC	Pax related elasticity	0.52
	Service Delivery DAP	Bottom up analysis	
	Cleaning	Bottom up analysis	
	Other BU's	Fixed at 2022 levels	
Retail Staff		Pax related elasticity plus additional staff for new	
	Retail Shop Operations	stores/space	0.46
	Other BU's	Bottom up analysis	
Maintenance Staff	All BU's	Pax related elasticity	0.35
Capital Projects	All BU's	Fixed at 2022 levels	

8.5.9 Further detail/analysis on each cost category can be shown in section 7 of Appendix 4.

Non-pay forecast

8.5.10 Each non-pay cost category splits into a number of sub-categories that roll up into each non-pay category. Non-pay costs have been forecast at this individual prime cost level rather than the overall cost category to enable different approaches to the costs within the prime GL account depending on what is most appropriate (elasticity based, bottom up or fixed).

8.5.11 In most cases for non-pay, the costs are either fixed at 2022 levels or use a bottom-up analysis and take the baseline costs adjusted for any known uplift in costs expected in the years 2023-2026. There are a few exceptions to this approach which are outlined in the table below (e.g. marketing (elasticity) and other staff costs (unit cost per FTE).

8.5.12 The forecasts are expressed in real terms, therefore inflation has not been applied. However, we have incorporated price elements over and above expected CPI for energy, consultancy and PRM's due to the nature of these costs and the current external energy and labour market environment.

TABLE 15: APPROACH & ELASTICITIES USED IN DUBLIN AIRPORT NON-PAYROLL FORECAST

Cost Category	Approach	Elasticity
Car Parks	Bottom-up analysis	
Facilities and Cleaning	Bottom-up analysis	
Maintenance	Bottom-up analysis	
PRM	Bottom-up analysis. Includes estimates re PRM pricing	
Other Staff Costs	Unit cost per FTE (Based on 2019 cost per FTE)	
IT and Technology	Bottom-up analysis	
Utilities	Bottom-up analysis. Energy inflation assumptions applied.	
Rent and Rates	Bottom-up analysis	
Marketing and Related Costs	Pax related elasticity applied to general marketing costs. Aviation customer support forecasted using bottom up approach	0.99
Insurance	Bottom-up analysis	
Consultancy	Bottom-up analysis. Costs assumed to move in line with wage inflation	
Other Non-pay	Bottom-up analysis/Fixed at 2022 levels (depending on prime account)	

8.6 Forecast Opex Summary

8.6.1 The overall opex forecast for Dublin Airport is for an increase in costs from €[redacted]m in 2022 to €[redacted]m in 2026, with FTEs growing from [redacted] to [redacted].

TABLE 16: DUBLIN AIRPORT TOTAL OPEX FORECAST 2022 - 2026

Payroll Costs & FTEs

TABLE 17: DUBLIN AIRPORT PAYROLL FORECAST 2022 – 2026

8.6.2 The increase in payroll costs of €[redacted]m is split between payroll inflation of €[redacted]m and increased staffing requirement of a further €[redacted]m. The staffing increase is split between passenger volumes ([redacted]), other increases (€[redacted]m) less further efficiencies (-€[redacted]m).

FIGURE 30: DUBLIN AIRPORT PAYROLL COST BRIDGE 2022 TO 2026 (€M)

8.6.3 The FTE increase of [redacted] is driven by increased passenger through put ([redacted] FTEs), additional facilities ([redacted] FTEs), new cost items ([redacted] FTEs), other increases ([redacted] FTEs) less an efficiency saving of [redacted] FTEs.

TABLE 18: DUBLIN AIRPORT PAYROLL COST BRIDGE 2022 TO 2026 (€M)

8.6.4 The additional facilities requirements are split between:

- A net increase of [redacted] FTEs from the removal of additional screening required in 2022 and the adoption of specialised screening and the installation of C3 cabin baggage screening and body scanners
- Airside operations: increased safety checks due to more bussing and more equipment airside ([redacted] FTEs) and the north runway ([redacted] FTEs)
- Facilities & Cleaning: Increased customer service to manage the additional bussing operations and increased congestion in the terminals ([redacted] FTEs)
- Retail: 3 new stores [redacted] FTEs)
- Maintenance: increased requirements across the increased bussing operations and increased congestion ([redacted] FTEs), plus the additional security equipment ([redacted] FTEs), the addition of the North Runway ([redacted] FTEs) and the operation of the new HBS facility in T1 ([redacted] FTEs)

8.6.5 New cost items are driven by:

- Sustainability requirements driving additional central functions staffing ([redacted] FTEs) and within maintenance staff for additional noise and environmental management ([redacted] FTEs)
- Increased trainers required in security ([redacted] FTEs)
- Increased IT staffing required for new systems and cyber security ([redacted] FTEs)

8.6.6 Efficiency savings are delivered in security, through improved through-put with the adoption of ATRS in T2 ([redacted] FTEs), airside operations ([redacted] FTEs), facilities and cleaning ([redacted] FTEs) and retail staff ([redacted] FTEs). When added to the [redacted] FTE efficiency delivered between 2019 and 2022, there is a total efficiency saving of [redacted] FTEs or [redacted]% between 2019 and 2026.

FIGURE 31: DUBLIN AIRPORT FTE BRIDGE 2022 TO 2026

Non payroll costs

TABLE 19: DUBLIN AIRPORT NON-PAYROLL FORECAST 2022 - 2026

8.6.7 Non pay costs are forecast to increase by €[redacted]m due to pricing changes (€[redacted]m), passenger volume increases (€[redacted]m), facility changes and requirements (€[redacted]m) and new costs ([redacted]m).

8.6.8 The net price changes relate to cost increases above CPI for Insurance, Lounges, Shuttle bus, reduced rates recovered, maintenance, PRM and consultancy costs.

8.6.9 Facility changes will increase costs in cleaning, maintenance, north runway, apron bussing and CBP officers.

8.6.10 New cost items will be incurred in sustainability, IT, rent, insurance, regulatory requirements, and commercial activities.

FIGURE 32: DUBLIN AIRPORT NON-PAYROLL BRIDGE 2022 TO 2026 (€M)

8.7 Conclusion

8.7.1 As detailed in this chapter and in Appendix 4, Dublin Airport has been the subject of significant opex cost distortions directly imposed by the pandemic. The cost saving incurred in 2020-21 were achieved through various measures, most notably a significant company-wide right sizing programme, as well as the Irish Governments Temporary COVID-19 Wage Subsidy Scheme (TWSS). Protecting the business through the pandemic has exhausted all operating cost reductions without impacting the safe operation of the airport

8.7.2 As we enter the recovery phase and passenger volumes return to pre-pandemic levels the recent operational challenges incurred, particularly in security processing, has demonstrated the expedient requirement to ensure and maintain adequate resourcing across the regulated entity. The detailed analysis undertaken for this review and included in the overall pricing proposition enables the optimal staffing allocation for the forthcoming Determination period.

8.7.3 It must also be acknowledged that the reviewed Capital Investment Programme for 2020+, serves as the catalyst for delivering additional growth for airport users, while also requiring some additional costs, without reducing service levels or creating long term implication for infrastructure. The sustainability envelope proposed under the CIP 2020+ will facilitate changes to renewable energy supply, which in turn will reduce the utility costs of operating the airport but also enable Dublin Airport to progress the mandated decarbonisation requirements.

8.7.4 Finally, as detailed in chapter 4, The Commission's statutory objectives are due to be amended as part of the forthcoming Air Navigation and Transport Bill, with "safety and security" and "high-quality airport services" core aspects of delivering an appropriate price point. We strongly believe that the justification provided in the forecast opex assessment validates the

increase in charges proposed to align with the remuneration for an increase in service. This also fully aligns with the Dublin Airport forward strategy to allow passengers to feel at ease as we seek to optimise the passenger journey.

Operating Costs Chapter Summary:

- The forecast for operating cost levels reflects a) the increased passenger through put, b) additional facility, security and sustainability requirement, c) significant ongoing payroll inflation less d) additional efficiency savings being driven in the business.
- The overall opex forecast for Dublin Airport is for an increase in costs from €[redacted]m in 2022 to €[redacted]m in 2026, with FTEs growing from [redacted] to [redacted].
- The increase in payroll costs of €[redacted]m is split between payroll inflation of €[redacted]m and increased staffing requirement of a further €[redacted]m. The staffing increase is split between passenger volumes (€[redacted]m), other increases (€[redacted]m) less further efficiencies (-€[redacted]m).
- Non pay costs are forecast to increase by €[redacted]m due to net pricing changes (€[redacted]m), passenger volume increases (€[redacted]m), facility changes and requirements (€[redacted]m) and new costs (€[redacted]m).
- Overall, the 2026 operating cost forecast represents an efficiency saving of [redacted]% or € [redacted]m.
- The opex forecast is required to enable the higher value which the travelling public necessitate and expect.

09 Commercial REVENUE

DublinAirport

9. Commercial Revenue

9.1 Introduction

9.1.1 In addition to providing airlines and passengers with aeronautical infrastructure and services, Dublin Airport generates income from commercial activities. Commercial activities are an important part of our business and in 2019 generated €268m in revenue which was over 47% of total revenue. These activities also have significant value for our commercial partners.

9.1.2 Under the single till approach, the revenue raised from our commercial business is used to subsidise our aeronautical charges.

9.1.3 We are currently incentivised to increase the revenues raised from commercial activities as we retain any additional revenues above the target, and bear the cost where revenues are below target, until prices are reset. In 2014, the Commission introduced a rolling scheme to ensure that these incentives are equalised across all years of the price control.

9.1.4 As we increase our commercial revenues over time, the benefits are passed through to users in the form of lower charges than would otherwise prevail. In simple terms, the greater our long run commercial revenue, the lower our long run aeronautical charges (all else being equal). Therefore, while we benefit from increasing our commercial income in the short term, these benefits are accrued by airlines and passengers in the long run.

9.1.5 In the last regulatory period 2015-19, we achieved stronger than expected growth in commercial revenue. In relative terms, this resulted in a higher commercial revenue targets and lower charges in the 2019 Determination with commercial revenue expected to grow to €313m by 2024.

9.1.6 COVID-19 has had a significant impact on our commercial businesses with revenues in 2020 dropping by €173m to €94m, a decline of 65% on 2019 and some €170m lower than the commercial revenue target set by the Commission in the 2019 Determination.

TABLE 20: COMPARISON OF ACTUAL COMMERCIAL REVENUES TO 2019 DETERMINATION 2020 & 2021

**Note: 2021 numbers are draft and unaudited*

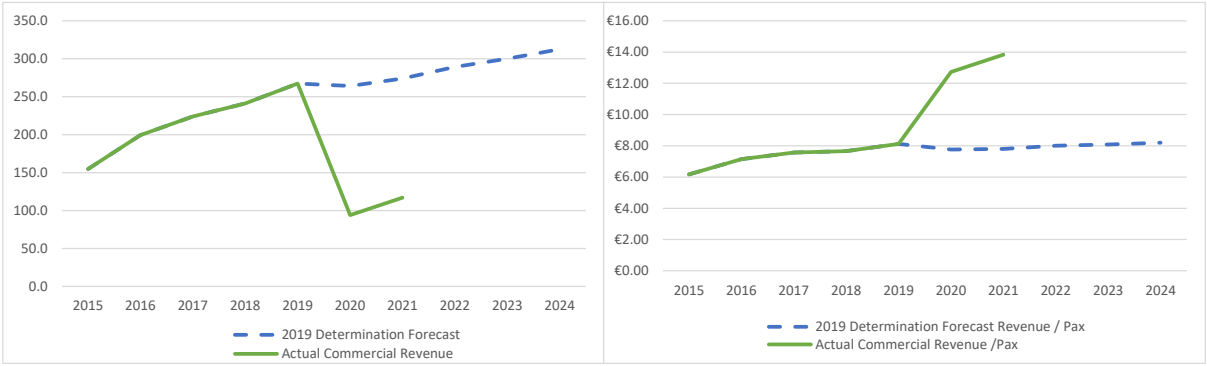
9.1.7 For full details of the impact of COVID-19 on our individual commercial businesses please see Appendix 5.

9.1.8 Looking to the future, we generally expect the commercial revenue per passenger to revert to pre-COVID levels with growth being limited due to capacity constraints when passenger volumes recover past 33m with consideration also being given to the downside risk from macroeconomic events.

9.2 Performance relative to 2019 Determination (2020-21)

9.2.1 Commercial revenue dropped to €94m in 2020 which was a decreased of €173m (65% on 2019 and some €170m lower than the commercial revenue target in the 2019 Determination. As a result of the lower passenger volumes, revenue per passenger spiked to €12.73 in 2020 which was €4.96 higher than the Commission forecast.

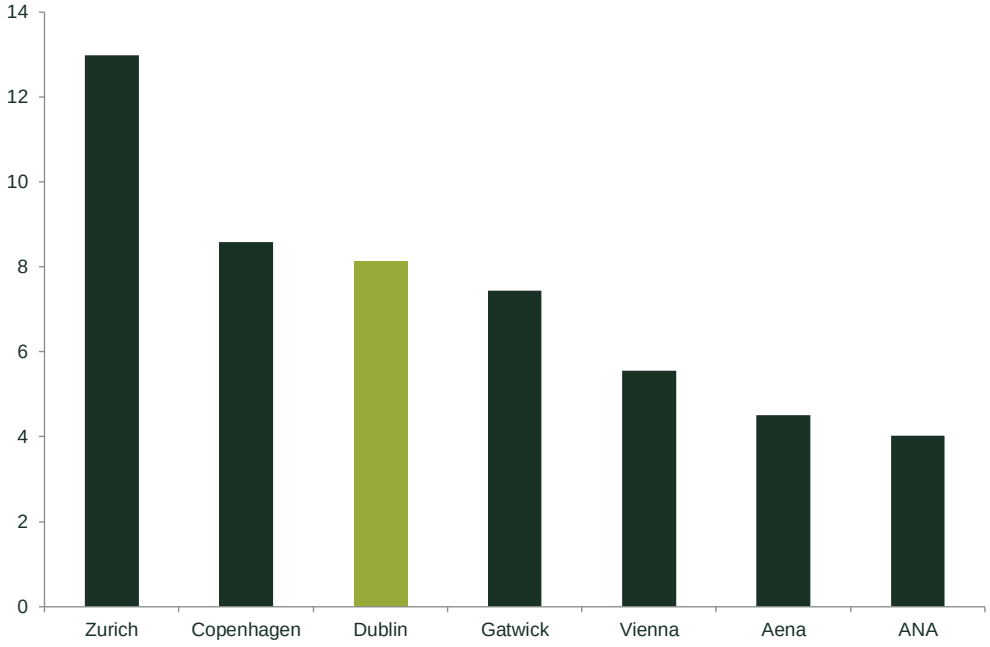
FIGURE 32 COMPARISON TO CAR TARGET FOR TOTAL COMMERCIAL REVENUE PER PASSENGER



9.3 Commercial Revenue Benchmarking

9.3.1 High-level benchmarking to other European airports suggests that our total commercial revenues per passenger in 2019 were in line with Copenhagen and Gatwick, and higher than Aena, ANA, and Vienna. Zurich has higher commercial revenues per passenger. These figures are based on commercial revenues and passenger numbers declared in the comparator airports' annual reports. Care therefore needs to be taken when interpreting these numbers due to potential differences in the scope and reporting of commercial revenues, which could mean they do not reflect a like-for-like comparison. However, this analysis indicates that our commercial revenue performance benchmarks well relative to comparators, and hence that we are delivering good value to users through the single till.

FIGURE 33: COMMERCIAL REVENUES PER PASSENGER AT EUROPEAN AIRPORTS (2019, €/PER PASSENGER)



9.4 Approach to Commercial Revenue

9.4.1 Dublin Airport is actively able to influence consumer behaviour and purchasing decisions through optimising our product offering, making effective investment decisions, and adopting efficient pricing strategies. Our commercial revenues—and, in particular, the income per passenger—will be higher where we offer products and services that are closely tailored to the preferences of our users.

9.4.2 Across the commercial business segments, we continually strive to improve the level of service and drive incremental value. Over the course of the last regulatory period, we introduced a number of new services and innovations, including:

- Investment in digital advertising screens across T1 and T2, which now account for more than 25% of our advertising revenues.
- Expansion of our short-term car parking facilities and resurfacing of the LT Red car park.
- Enhancement of our property portfolio (e.g., Skybridge).
- Improvements to our product and brand mix in our retail outlets and across our concessions.
- Active management of floor space—e.g., the T1 Retail Reconfiguration.
- Upgrade of Platinum Services product.
- Investment in the 51St & Green CBP Executive lounge.
- Sponsorship for the Fast-Track facility.

9.4.3 Since the onset of COVID-19 a key focus for the commercial teams has been maintain the commercial terms of our concession and property agreements while supporting our business partners. This is evident now as passenger volumes have grown in 2022 with our key business partners positioned to support Dublin Airport and meet our customer demands. Delivering products that meet and exceed out passenger expectations is a key focus for the commercial teams. For example, Platinum Services won two silver awards at the prestigious International Customer Experience Awards in 2021.

9.4.4 We also use pricing/yield management techniques (such as dynamic pricing) to better balance supply and demand, which is similar to airline pricing techniques. For example, we have revised the tariff structure for our car parking to better reflect peaks in demand, while continuing to ensure that we provide value for money for users. This has allowed us to continue to grow revenues despite capacity constraints. This has been particularly important during 2022 as increased demand for parking, coupled with reduced supply in the market has meant yield management has been required to ensure car parks do not fully sell out during peak periods i.e., Dublin Airport needs to ensure there is sufficient space for passengers to arrive and park on the day of travel to avoid passengers missing flights and congestion on surrounding roads.

9.4.5 However, there are limits to how far these tools can be utilised going forward, while continuing to offer value for money. We aim to retain our long term value proposition to passengers. Therefore, we do not see further price increases as a core part of our strategy for delivering further revenue growth when passenger trends normalise and additional car parking capacity is added back into the market. Indeed the requirement to increase prices in 2022 is at risk of damaging the car parks business in the medium term.

9.5 Key considerations for 2023-2026

Supply-side (capacity) constraints

9.5.1 Across many parts of our non-aeronautical business, capacity challenges will again become apparent meaning that revenue growth will be less responsive to increases in passenger traffic beyond 2019 levels.

- **Retail floor space:** In order for an airport to maintain and improve its commercial performance, it is necessary for increases in retail floor space as passengers increase beyond 2019 levels.
- **Car parking:** Car parking operations are expected to face capacity constraints again as passenger volumes recover past 2019 levels.
- **Commercial property**: Commercial property reached occupancy of 99% in 2019. This has resulted in some customer requests for property not being satisfied in recent times.
- **Commercial concessions (car hire):** Car rental facilities were operating at capacity in 2019, imposing significant operational pressure on car hire companies and impacting on customer experience.
- **Platinum Services:** The Platinum Services facility reached capacity in 2019 and was also operating at capacity again at times in Q3 / Q4 2021 as passengers increased.

Passenger mix and preferences

9.5.2 As passenger volumes have returned following the relaxation of COVID-19 restrictions it has become evident that the mix of passengers has changed to predominantly Irish originating. In Q4 2021, Irish originating passengers accounted for 68% of total passenger, this was up from 52% in the corresponding period in 2019. In Q1 2022, Irish originating passengers have continued to account for over 60% of total passengers. As expected, car parks are primarily utilised by Irish originating passengers so this change in mix has resulted in a higher proportion of car park users, similarly retail spend is higher among Irish originating passengers which has also resulted in an uplift in retail revenue relative to total passengers.

9.5.3 As passenger volumes return to 2019 levels, we expect these trends to normalise back in line with historic passenger patterns and revenue per passenger to return to 2019 levels.

General trends in airport commercial revenues

9.5.4 Internationally, airports' commercial businesses have been under threat for some years as the retail and mobility industries undertake fundamental structural transformations. The reduction in commercial revenues we have observed as a result of COVID-19 has been

mirrored across airports internationally. Dufry, the largest global travel retailer, reported a reduction in turnover from its airport stores of -77.9% in Q1 2021 relative to Q1 2019[26].

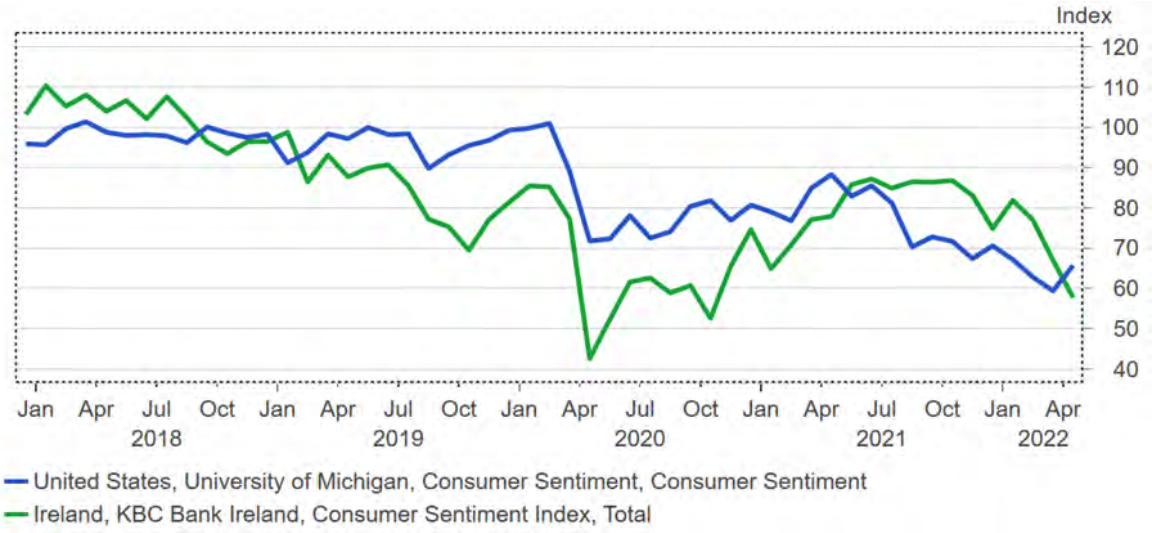
Macroeconomic uncertainty

9.5.5 The Irish economy, and those of other countries internationally, is currently facing a cost-of-living crisis that is expected to last for some time. Consumer price inflation is forecast to average 6.5% in 2022, driven by increasing wholesale energy, fuel and food prices. This is expected to result in falling real incomes and weaker consumer confidence, which in turn are likely to affect disposable incomes and constrain household spending. The latest Central Bank estimates indicate consumption growth of 7.4% in 2022, slowing to 4.7% in 2023 and 3.9% in 2024[27].

9.5.6 Macroeconomic forecasts are currently subject to high uncertainty given the Russian invasion of Ukraine and the drivers of energy price inflation. KBC Bank Ireland's consumer sentiment index fell significantly in April 2022, reflecting consumer concerns around the outlook for the economy.

9.5.7 This loss of consumer confidence has the potential to impact spending on commercial products offered at Dublin Airport, particularly where this is considered to be 'discretionary' spend (e.g. retail).

FIGURE 34: CONSUMER SENTIMENT INDEX



Source: KBC

[26] The Moodie Davitt report (2021), 'Dufry turnover remains depressed in Q1; duty paid sales resilient in challenging market; retailer aims to reopen two-thirds of stores by this month', 20 May.
[27] Central Bank of Ireland (2022), 'Quarterly Bulletin Q2 2022', 6 April.

Investment and development opportunities

9.5.8 While there are constraints on our ability to sustain the rate of commercial revenue growth achieved in the last regulatory period, there are also opportunities that we expect to pursue.

9.5.9 The CIP contains €192m of investment in our commercial business. Approximately 75% of the proposed investment relates to capacity projects.

9.5.10 The residual 25% of our proposed commercial investment is necessary for required maintenance. This spend is not expected to contribute to revenue growth in the next period but is essential for maintaining our existing service levels and thus sustaining existing revenues.

Summary of key themes affecting commercial revenues in 2023-2026

9.5.11 The construction of Terminal 2 and other enhancements across the Dublin Airport campus have ensured that capacity had been sufficient to meet growing demand from passengers and businesses alike in the last regulatory period. As passenger volumes start to return to 2019 levels, we expect to see capacity issues across our commercial portfolio that is expected to dampen future growth in commercial income.

9.5.12 Importantly, the upside potential for growth is limited by the capacity constraints identified above, but the downside risk is both significant and uncapped. In particular, the risks associated with events such as a resurgence of the COVID-19 pandemic, other pandemics, or expansion of the War in Ukraine to the rest of Europe are firmly tilted to the downside. This means that the distribution of outcomes is asymmetric and negatively skewed.

9.5.13 While we have identified areas where there is scope for further growth, our forecasts reflect these forward-looking challenges, and we consider that an assessment of these factors should be integral to the Commission's methodology for setting commercial revenue targets.

9.5.14 There is a close relationship between our commercial income projections and other building blocks within the regulatory proposition. There is therefore a need for consistency across these areas.

9.5.15 Full details of all the above factors are set out in Appendix 5.

9.6 Detailed Commercial Revenue Assessment

9.6.1 Dublin Airport has prepared forecasts on a bottom-up basis building on our expert knowledge of our commercial business, assessment of the unique set of challenges that we will face in 2023-26 and analysis of wider trends in each of our business segments, particularly any long-term changes as a result of COVID-19. For each of the activities we have considered:

- As our starting point, we have used 2019 revenue per passenger as the starting point for forecasting our commercial revenues. This was the approach which we proposed in our response to the Commission's Issues paper CP1/2022. However, in some instances we have adjusted this figure to take account of external factors impacting future revenue (e.g. UK duty free) and changes in passenger behaviour that we expect to continue (e.g. decline in demand for FX). We have not used 2022 as the base year position due to suppressed passenger volumes in Q1 and the anomalies in passenger mix and behaviours.
- Underlying growth forecast. For each revenue category, we have undertaken an assessment of the key revenue drivers (both demand-side and supply-side factors) and have considered the opportunities and constraints on growth. We have used this assessment to establish an underlying growth forecast for each revenue category.
- Uplifts for positive supply side effects, including capital investments. A large portion of the commercial projects included in the proposed CIP will generate additional commercial revenues in the future. We have applied uplifts to our forecasts to take account of these new revenue streams (commencing following the completion of the project).
- Downward adjustments for negative supply side impacts. We have made downward adjustments where there is an expected temporary disruption or permanent displacement as a result of capital investment or other external factors.
- Key risks. The revenue projections reflect an appropriate balance of upside and downside risk. We have assessed the key risks for each business revenue line and the potential distribution of outcomes. Where we have a good idea that an event will materialise, we have included this in our commercial revenue forecast.

9.7 Regulatory Till Structure and Evolution 2026+

9.7.1 In the past Dublin Airport has voiced its concerns regarding the continuous use of the single till within the regulatory model. We believe that the single till mechanism weakens price signalling in the market for aeronautical services as airport charges are artificially low given that aeronautical revenues are supplemented by non-aeronautical revenues. In addition, the single till approach gives rise to an aeronautical pricing structure, which introduces or accentuates allocative inefficiency.

9.7.2 We would have concerns that over time the single till mechanism can distort investment incentives in both aeronautical and non-aeronautical activities and it also extends the remit of regulation beyond the confines of aeronautical charges into commercial non-aeronautical activities, which are already subject to market competition.

9.7.3 In contrast we advocate the use of a dual till approach on the basis that this offers a superior level of allocative efficiency in the case of congested airport facilities as it allows prices to properly reflect the marginal cost of provision of aeronautical services. The dual till approach

provides enhanced price signalling in the airport market. It allows for airport charges to cover costs incurred directly by aeronautical activities and therefore offers a more cost transparent approach.

9.7.4 While in principle we may advocate the theoretical merits of a dual till we understand that a shift from a single to a dual till at this time would not be advisable given the requirement for a potentially notable increase in airport charges. However, as a compromise, we would request that the Commission reconsiders the case for the introduction of a more extensive hybrid till at Dublin Airport where this would potentially allow for an agreed percentage of all forecast commercial revenues to remain outside the regulatory till for the purpose of calculating the annual price cap.

9.7.5 As detailed in the Dublin Airport White Paper, from March 2021, there is significant regulatory precedence where competitor peer airports in Europe have migrated from a single till to hybrid till regime.

9.7.6 A hybrid till regime considers which activities / revenues should be included in the till, and/or the extent to which commercial profits should be shared between the airport and users. In principle, there are two main types of hybrid till regimes, as follows:

a) Revenue-sharing arrangement: in this hybrid-till approach, some of the economic profits generated by non-aeronautical services are used to recover the costs of providing aeronautical services. For example, at Copenhagen Airport between 30% and 50% of commercial revenue is included in the regulatory till. At Amsterdam Schiphol there is a 'voluntary contribution' to the regulatory till that is determined at the beginning of the year by the shareholder (the Dutch Finance Ministry).

b) Limited regulatory domain: in this approach some commercial activities are excluded from the till entirely, typically because they are provided in a competitive market or because they are not essential to the operation of the aeronautical business. For example, at AdP in 2017, the French government put in place a modified till such that only car parking remains in the regulated perimeter. It was considered that the hybrid till would motivate AdP to continue to undertake efforts with regard to retail activities, thereby promoting customer satisfaction.

9.7.7 We believe that there is justification for such a revenue-sharing arrangement given that it is apparent that there is significantly increased risk across a number of the commercial activities that the Dublin Airport is involved in, therefore there is a need for more flexibility when making investment decisions in this enhanced risk environment.

9.8 Conclusion

9.8.1 Based on our assessment of the above factors, we have developed revenue forecasts for each of the eight categories of commercial revenue for 2023 to 2026. Consistent with our approach

to operating costs, the commercial revenue forecast is presented in February 2022 prices. A summary of our forecast is set out below with full details set out in Appendix 5.

TABLE 23 COMMERCIAL REVENUE FORECAST SUMMARY

Commercial Revenue Chapter Summary:

- Commercial revenue per passenger is expected to revert to pre-COVID levels but with growth limited due to capacity constraints when passenger volumes recover past 33m.
- Dublin Airport has prepared forecasts on a bottom-up basis building on our knowledge of our commercial business, assessment of the unique set of challenges that we will face in 2023-26 and analysis of wider trends in each of our business segments.
- Dublin Airport call for a review of the till structure and consideration of implementation of a hybrid till as part of the next regulatory review period.

10 CAPITAL EXPENDITURE

DublinAirport

10. Capital Expenditure

10.1 Impacts of COVID-19 on CAPEX

10.1.1 While Dublin Airport remains committed to our medium-term goal of developing the airport capacity and infrastructure to deal with 40 million passengers per annum as set out in our Capital Investment Programme (CIP2020+), the COVID-19 pandemic has impacted the time frame for this development.

10.1.2 The Dublin Airport five-year Capital Investment Programme (CIP), which was agreed and commenced at the end of 2019, has also been greatly impacted by the pandemic. Projects have been deferred and timelines elongated to reduce spending and preserve the Airport's finances. The timing and pace of recovery in air travel demand remains uncertain.

10.1.3 In preparation for the forthcoming review, Dublin Airport has reviewed and refined its original CIP2020+, to best reflect the needs of Dublin Airport and our airport partners in the aftermath of COVID-19. The duration of CIP2020+ will also be extended by two additional years to balance the two years that were lost to COVID-19. A new traffic forecast has been proposed based on projected post-pandemic recovery trends. The CIP remains focused on building capacity to accommodate 40 million passengers per annum (mppa), though the time horizon for this has shifted to the end of the decade.

10.1.4 Since 2019, there has also been a change to the regulatory environment in terms of planning laws, COVID-19 measures, and sustainability/carbon reduction requirements. The projection of construction inflation has become more complex due to the disruptive effects of the pandemic and the Ukrainian war. All these factors will be considered in this review to shape cost, scope and timelines for existing and new projects.

10.1.5 We welcome the Commission's commitment to providing the flexibility to adjust capital expenditure in response to changing circumstances or the changing needs of users while also ensuring sufficient regulatory certainty for Dublin Airport regarding remuneration of efficient costs.

10.1.6 Due to both a) the quantum of the capital required to meet customer and sustainability requirements and b) the damage done to Dublin Airport's balance sheet since 2019, the allowance of capital projects into the RAB must be accompanied with a robust financial viability assessment which gives Dublin Airport confidence that it can embark on this investment programme in a financial position that can withstand the majority of likely market conditions.

10.2 Approach to CAPEX

10.2.1 Dublin Airport has consulted with its airport users on a revised version of its CIP 2020+ which is designed to accommodate a forecast medium-term demand level of 40mppa. The original CIP2020+ has been adjusted to take account of investment progress to date, forecast traffic recovery, project timelines, new legislation, new regulations, and the addition of 2025 and 2026 in the forthcoming 2023-2026 regulatory period.

10.2.2 Dublin Airport is seeking the Commission's approval for revised capital allowances relating to proposed investment over the period 2023-2026 in the Core (Asset Care, Security, and IT), Commercial, and Capacity categories included in the 2019 Determination and with the addition of sustainability projects as a fourth category as outlined in our response to the 2022 Issues paper CP1/2022.

10.2.3 The proposed approach for core projects is to retain the existing allowance, adjusted for inflation for the existing projects. In relation to the two additional years, after consultation with airport stakeholders, exceptional large projects are included, and a pro-rata allowance is being sought for smaller projects for 2025 and 2026. Commercial projects have been reassessed and where scope adjustments or additional projects are required, they have been included for consideration. The large capacity projects have been adjusted for inflation, scope change, programme and have been presented as an amalgamated into larger groupings based on overall project goal and location. Sustainability / Carbon Reduction projects have been added to meet the requirement to reduce carbon emissions by 51% by 2030 and achieve net zero no later than 2050. This submission best reflects the mix of projects required to drive the recovery at Dublin Airport and build back better infrastructure to best serve our airport partners.

10.2.4 As this current capex review includes all the projects that Dublin Airport wish to progress to 2026 and beyond it is our position that the requirement for consultation on projects >€4m will not be required after the issuance of the Determination. The requirement for StageGate projects to be consulted using that procedure will be the only consultation required after the Determination.

10.3 Treatment of PACE Projects

10.3.1 The Programme for Airport Campus Enhancement (PACE) was a suite of projects approved by the Commission in 2017 in addition to the 2014-2019 CIP projects. They were formulated to address the rapid increase in traffic that was being experienced in this period as the economy and air travel rebounded.

10.3.2 In response to clause 9.26 of the issues paper Dublin Airport proposes that the remaining PACE projects that are not being currently treated as part of a StageGate project are added to the 2023 opening RAB. Specifically, this relates to Apron 5H that was presented to users during the CIP consultation on the 23rd of March 2022. We propose for this to enter the RAB at the

allowance outlined during this presentation. The other projects that are being treated as part of StageGate projects should continue to be treated in this way.

10.3.3 In addition, we are seeking full remuneration for the South Gates (PBZ) project. This development was introduced to facilitate growth from 2017 onwards at Dublin Airport. The South Gates (PBZ) form a critical part of airport operations on the South Apron, providing five boarding gates serving nine aircraft parking stands. This facility gained full user support and it will form an essential element of our infrastructure for the period 2023-2026. Despite this, the Commission did not allow for the remuneration of the entire South Gates project costs in its 2019 Determination. It is an essential piece of enabling infrastructure to maintain growth in the south apron until the introduction of Pier 5.

10.3.4 The cost of the PBZ project of €21.3m was delivered efficiently and this was confirmed by the Commission's own consultants (Reference: Dublin Airport Supplementary CIP Efficiency Assessment – Final Report, June 2018, Steer Davies Gleave)

10.3.5 Given that the PBZ was requested, endorsed and consulted on throughout the PACE process, we now request full remuneration for this with the inclusion of the capital spend associated with this project in the RAB for 2023-2026.

10.4 StageGate Assessments

10.4.1 The StageGate process was introduced with the 2019 determination and gives a mechanism for project allowances to be determined for large complex projects when sufficient design and cost information is available. This information is assessed by the Commission's Independent Fund Surveyor (IFS) for efficient use of capital and is consulted with the airport users.

10.4.2 Dublin Airport supports the continuation of the StageGate process in our response to the 2022 Issues paper CP1/2022. We believe that this process has greatly enhanced the regulatory framework relating to capital investment by adding a layer of flexibility in relation to the evolving scope and cost of projects which works in the favour of both the airport and its users.

10.4.3 However, it has been Dublin Airport's experience to date on complex StageGate 1 assessments that a significant amount of time during the assessment process is consumed by the tracing through of the original CIP submitted scope to StageGate 1 presented scope. The project has been developed from an outline scope in the CIP submission to a detailed level 3 bottom-up costing of a scope to construct the project. The project as presented in StageGate 1 is driven by detailed design, consultation with stakeholders and operational assessments for delivery. It would be Dublin Airport's view that an assessment of the efficient use of capital for the delivery of the project presented in StageGate 1 without tracing from the original scope would be most efficient.

10.4.4 In conjunction with the previous proposition Dublin Airport would like to conduct StageGate on a quarterly basis going froward. This will allow the airlines to be kept up to date with any changes in scope on other StageGate projects in a timely manner as detailed design is being developed.

10.4.5 In the StageGate projects to date it has been apparent that different StageGate projects have different assessment durations depending on the design and funding complexity of the project. Dublin Airport would propose to agree with the IFS / Commission a timeline for completing an assessment at the outset of each project assessment. This will create realistic targets to complete the project assessment and allow both Dublin Airport and the IFS to plan resources for these activities.

10.5 Sustainability Capex

10.5.1 The government published the Climate Action and Low Carbon Development (Amendment) Bill 2020, which established a mechanism of 5 yearly Carbon Budgets, and in November 2021 published the Climate Action Plan 2021, which commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030. In addition to this, we are also now required to achieve improved energy ratings in our terminals, electrify our fleet under the Clean Vehicle Directive and commit to the circular economy.

10.5.2 Given the scale of these requirements and the timelines associated with the review of the CIP, it has not been possible to develop detailed feasibility studies. Recognising the significant uncertainty associated with these projects, we have requested that the majority of the sustainability projects be considered through the StageGate process, allowing the most appropriate solutions to be developed and consulted with airport users.

10.5.3 There will be economic benefits but the scale of investment will require us to evaluate opportunities predominantly in the context of carbon reduction. Through the StageGate process and following concept refinement and feasibility, we will clarify where Opex and operational benefits are attributed to each project. We have also included projects that will assist airport users in achieving their carbon goals. These projects include the electrification of the ramp, passenger vehicle charging and investment in the infrastructure of sustainable aviation fuel (SAF).

10.5.4 We also believe that in order to meaningfully support Dublin Airport to achieve the targets and policies of the Government on aviation, climate change and sustainable development, remuneration of sustainability related capex in the next Determination should be accelerated such that this investment does not dilute Dublin Airport's key debt metrics. This is a key call out of Dublin Airport.

10.6 Treatment of Inflation

10.6.1 The costs presented for the inflation adjustment for all projects is using the Society of Chartered Surveyors Ireland (SCSI) Tender Price Inflation (TPI) up to Q4 2021 (the time the calculation took place). This was done by removing the inflation treatment given in 2019 determination and replacing it with the TPI calculation to this quarter. The TPI is a measure of tender price returns for civil engineering projects in Ireland reported semi-annually. This is closely aligned to the actual inflation experienced up to this quarter. Then an inflation adjustment of 4% per annum was applied up to the midpoint of construction for each project beyond this quarter. In the case of the core this was applied to pre-existing projects from 2019. New smaller projects for 2025 and 2026 are being allowed for using the pro-rata treatment (annual average of the new yearly allowances to 2024 for small regular projects in 2025 and 2026). Additional exceptional core projects are being proposed with appropriate project sheets and cost proposals.

10.6.2 Dublin Airport are proposing an inflation only adjustment for pre-existing core projects. A pro-rata treatment for smaller regular projects in 2025 and 2026 and additional exceptional core projects. The compressed nature of this review necessitates innovative regulatory solutions, and, in this area, we propose this broad treatment to the core projects. The small projects are primarily of asset renewal and updating in nature and are required for the efficient operation of the airport going forward. Dublin Airport is primarily composed of aging assets that if not renewed and updated will add operational costs and unreliability risk as time progresses. The exceptional additional projects are included in the submission for assessment to address currently identified needs within the asset care, IT and security envelopes.

10.6.3 The 4% per annum inflation allowance from Q4 2021 onwards is the central inflation projection for the period to the end of 2026. Dublin Airport is proposing this allowance on the condition that a mechanism will be allowed for in this review CIP period to adjust this predicted inflation to actual inflation. This will reduce the risk in predicting inflation over a volatile period post pandemic and during the Ukrainian conflict which has exacerbated inflation even further. It is proposed that the inflation will be adjusted for the SCSI TPI inflation index as it is the most appropriate to the works included in the CIP. If there is no mechanism for adjustment a revised projection of inflation will be required to address increased risk associated with a fixed allowance for a highly volatile period.

10.6.4 Given that the price cap is currently adjusted annually for CPI inflation in the price cap formula, a further adjustment in the formula will be necessary to adjust our CIP allowances for SCSI TPI inflation. This is in accordance with our position outlined in section 2.3.4. As our construction services are being procured over an extended period it is normal for an adjustment for inflation to be included in construction contracts. This removes inflation as a risk item and allows the best rates to be secured. If this allowance was not included the rates supplied by contractors would include an allowance for the risk associated with inflation over this period and premium on top of that. In addition to this due to the volatility of the market it would be

highly unlikely a contractor would accept this risk. Therefore, setting contracts with an adjustment factor for inflation is the most cost efficient and robust method available to Dublin Airport.

10.7 Price Cap Triggers

10.7.1 Dublin Airport understand that the Commission may choose to adopt certain price cap triggers relating to capex expenditure and specific project milestones over the period 2023-2026. However, given the high level of market uncertainty currently prevailing, we would urge the Commission to add a degree of flexibility to any triggers specifically in relation to where achieving specific project milestones could be potentially delayed due to third party actions outside the control of Dublin Airport.

10.7.2 Dublin Airport is using its best endeavours to deliver the projects contingent on third party approvals, and we would ask the Commission to understand that these decisions are outside our control. It is our aim to develop appropriate infrastructure as it is required to assist our growth to a 40mppa airport.

10.8 RAB Roll Forward

10.8.1 We understand that as part of the 2022 review, the current RAB will be indexed and rolled forward for 2023-2026. We understand that the Commission will carry out this task using the established RAB roll forward principles.

10.8.2 However, over the period 2020-2022, a certain quantity of capital expenditure was added to the current RAB for projects that were delayed or not yet completed due to the impact of the COVID-19 pandemic. Under the current RAB roll forward principles it would be expected that this capital expenditure would be removed from the RAB going forward. In this instance we would suggest an alternative approach.

10.8.3 Dublin Airport believes that this unspent capex should be retained in the RAB (subject to the appropriate adjustments) in order to compensate Dublin Airport for the severe losses in revenue experienced in 2020 and 2021 due to COVID-19. These losses were unprecedented and if Dublin Airport is not compensated for this revenue shock, this will call into question our ability to recover efficient investment in the airport infrastructure.

10.8.4 We propose that the Commission should undertake a RAB reconciliation as part of the 2022 regulatory review where the revenue losses in 2020-22 resulting from COVID-19 (in particular, unrecovered operating costs and debt costs) should be recoverable in future periods via a specific adjustment in the opening RAB for 2023.

10.8.5 We note that there is now precedent for such a RAB adjustment among a number of airport operators across Europe and that the UK CAA has already acted to provide an explicit RAB

adjustment to allow Heathrow Airport to recover some of the lost revenue resulting from the pandemic.

10.9 Consultation on the CIP2020+ Review

10.9.1 As part of its review of the CIP2020+, Dublin Airport has consulted with its airport stakeholders. We have outlined the impacts of COVID-19 and new legislation on our businesses and how these have impacted the capital development programme. We gave updates on projects completed and our recovery forecast, capacity/capital needs and requirements to grow to 40mppa by the end of this decade. We presented the scope and cost changes to original projects and the rationale for several new projects primarily focused on sustainable drivers. We have presented new solutions to address additional Core project needs and a mechanism to accommodate volatile inflation forecasts. Our consultation involved the following three phases.

- Informal pre-consultation with key airport stakeholders between the 13th and 20th December 2021.
- Issue of the CIP2020+ Review Stakeholder Consultation report on the 1st March 2022 to all airport stakeholders.
- Presentation to airport stakeholders on the 22nd and 23rd of March 2022 at Dublin Airport, with all airport stakeholders, invited.

10.9.2 Following the above consultation, the closing date for written responses was 11th April 2022. Dublin Airport received nine written responses to this consultation process. This consisted of responses from 4 airlines, 1 fuel handler, 1 general aviation handler, 2 hanger MRO businesses and the international air transport association. These responses and the questions raised, or comments made during the consultation with stakeholders have informed the changes in the CIP 2020+ Review final document.

10.9.3 These user opinions have been captured under the following headings, (1) a general sentiment towards the project as supportive/does not object, (2) partially supports, (3) objects and (4) no comment on individual projects. The vast majority of projects received no comment, supportive being the next most common, followed by partial support and finally objection. Full details of the user comments are set out and analysed in the CIP2020+ Review final document.

10.10 Remuneration of Capex 2023-2026

10.10.1 It is Dublin Airport's position that the total capital allowance enabling this CIP2020+ Review should enter the Regulated Asset Base over the period 2023-2026 as investment is undertaken. All the core projects are required to maintain and renew the current assets at the airport and will be delivered in this period. In the case of capacity these projects are

required to raise the capacity of the airport to 40mppa and are subject to planning permission being granted by Fingal council. Dublin Airport want to deliver these projects as soon as possible and build the capacity for our airline stakeholders. The sustainability projects with construction allowances included in the CIP submission are being progressed as a priority to reach our climate action bill commitments. These projects will be progressed in this CIP period with the other projects developed for construction in the next CIP period.

10.10.2 As part of the CIP2020+ Review, cost estimates for the capacity, commercial and new sustainability projects have been reviewed and updated where applicable, with additions included to account for inflation and scope change. Currently, there is uncertainty around material and labour prices due to hyperinflation due to post-pandemic effects and the Ukrainian war. The pace and magnitude in traffic recovery is uncertain as we navigate this post-pandemic period. The cost of capital and credit streams is uncertain given the airport's financial situation after 2 years of lost business, the climate impact of aviation and investor appetite for this in the future given the ongoing climate emergency. If certainty can be given for the determination allowance to the enter the RAB in 2023 it can lessen some of the impact of the other uncertain factors. In 2026 when the CIP will be renewed, and the aviation market and world events should be in a more settled pattern and assessment of the RAB can then be done in the normal manner.

10.11 Capital Investment Programme

10.11.1 Following a review of our original CIP2020+ and consultation with our airport users, Dublin Airport is seeking capital allowances in the next regulatory determination for investment amounting to €2,966m as set out in the table below. Full details of this request is set out in the final CIP 2020+ Review.

CIP Review 2020+ Cost Summary		
A	Core (Incl HBS)	€969.78
B	Capacity (Excl 5H)	€1,411.96
C	Commercial	€190.46
D	Sustainability	€394.58
E	**CIP2020+ Review subtotal (E=A+B+C+D)**	**€2,966.78**[28]

[28] €448.0m pertains to CIP spend to the end of 2022, with C. €2.58b representing the review Determination period.

Capital Investment Chapter Summary:

- Dublin Airport has reviewed and refined its original CIP2020+, to best reflect the needs of Dublin Airport and our airport partners for 2023-2026.
- Dublin Airport is seeking the Commission's approval for revised capital allowances relating to proposed investment over the period 2023-2026 in the Core (Asset Care, Security, and IT), Commercial, and Capacity categories included in the 2019 Determination and with the addition of sustainability projects as a fourth category.
- Dublin Airport believes that unspent capex for 2020-2022 should be retained in the RAB in order to compensate Dublin Airport for the severe losses in revenue experienced in 2020 - 2021 due to COVID-19.
- To support Dublin Airport to achieve its targets on aviation, climate change and sustainable development, remuneration of sustainability related capex should be accelerated.
- The CIP2020+ Review profiles a spend of €2.5bn for the period 2023-2026.

11 Cost of CAPITAL

DublinAirport

11. Cost of Capital

11.1 Introduction

11.1.1 As part of our preparation for the 2022 regulatory review, Dublin Airport commissioned NERA Economic Consulting (NERA) to estimate the cost of capital for Dublin Airport for the regulatory period 2023-2026.

11.1.2 In carrying out this assessment, NERA were asked to follow the same approach as the Commission/Swiss Economics (SE) 2019 approach in estimating the cost of equity using the Capital Asset Pricing Model (CAPM) and in estimating the total market return (TMR) and risk-free rate (RFR) directly, deriving the equity risk premium (ERP) as the residual (i.e., ERP = TMR – RFR). NERA have also followed the same broad framework as the Commission / SE to estimate the cost of debt.

11.1.3 Table 25 shows the NERA cost of capital estimate for Dublin Airport for the 2023-2026 regulatory period based on their outlined assumptions. NERA have presented two different approaches to the calculation of the cost of equity. Approach 1 uses most recent estimates of asset betas, with no adjustment or weight given to solely pre-COVID estimates. Alternatively approach 2 is based on the CAA's estimate of pandemic beta uplift (0.04 to 0.14), and our estimate of Dublin Airport's pre-pandemic asset beta of at least 0.6. These two alternative ranges for the cost of equity are combined with a cost of debt of -0.2 to 0 per cent, a gearing of 50 per cent and aiming up allowance of 50 per cent to give two alternative ranges for a final cost of capital based on the approach used to calculate the cost of equity.

11.1.4 The objective of considering the two methodological approaches to the Cost of Capital review is founded in the primacy of the implications to the overall WACC calculation to the price cap building block model and the considerable impacts to end pricing

11.1.5 Under both approaches the cost of capital allowance is somewhat higher than the current allowance. This is a necessary increase in order to reflect the substantive increase in risk that Dublin Airport has experienced arising from the current COVID-19 outbreak, the continued pandemic risk and current global political issues. The high level of market uncertainty that will prevail in the next regulatory period as we move towards recovery while dealing with various ongoing market risks should be reflected in a higher WACC allowance.

11.1.6 A higher cost of capital is evidently justified given that Dublin Airport does not have any risk sharing mechanism embedded in its regulatory model unlike other regulated entities. In addition, there is uncertainty as to whether the Commission will allow for any RAB adjustment to reflect the devastating impact of the COVID-19 pandemic on the company's balance sheet.

TABLE 25: A REAL WACC FOR DUBLIN AIRPORT 2023-2026

Parameter	CAR 2019	Approach 1: Current beta estimates		Approach 2: Pre-COVID beta 0.6+ uplift (0.04-0.14)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound
Gearing	50%	50%	50%	50%	50%
Risk Free Rate	-0.60%	-0.94%	-0.60%	-0.94%	-0.60%
Total Market Returns	6.40%	6.8%	7.0%	6.8%	7.0%
Equity Risk Premium	7.00%	7.7%	7.6%	7.7%	7.6%
Asset Beta	0.5	*0.72*	*0.84*	*0.64*	*0.74*
Equity Beta	0.94	*1.44*	*1.68*	*1.28*	*1.48*
Cost of equity (after tax)	6.00%	10.1%	12.1%	8.9%	10.6%
Cost of debt (pre - tax)	**0.60%**	**-0.23%**	**0.00%**	**-0.23%**	**0.00%**
Pre-tax WACC (before aiming up)	3.72%	5.67%	6.94%	4.97%	6.09%
Aiming up	0.50%	0.5%	0.5%	0.5%	0.5%
Pre-tax WACC (post aiming up)	**4.22%**	**6.17%**	**7.44%**	**5.47%**	**6.59%**

Source: NERA analysis; CAR (24 October 2019) Determination on the Maximum Level of Airport Charges at Dublin Airport 2020-2024, p.94.

11.1.7 The NERA estimate of the cost of capital for Dublin Airport for 2023-2026 is based on the following parameter estimates set out below.

11.2 Asset Beta

11.2.1 As part of its reassessment of the cost of equity, NERA looked at two alternative approaches to the calculation of this parameter.

11.2.2 In approach 1, NERA carried out a revised estimate of Dublin Airport's beta, based on comparators asset beta estimated using ordinary least squares (OLS) statistical techniques.

11.2.3 In its approach 1 NERA draws on current market evidence to estimate beta risk for Dublin Airport over the period 2023-2026, with no adjustment or weight given to solely pre-COVID estimates. Current market evidence captures a substantive element of COVID-19 period and

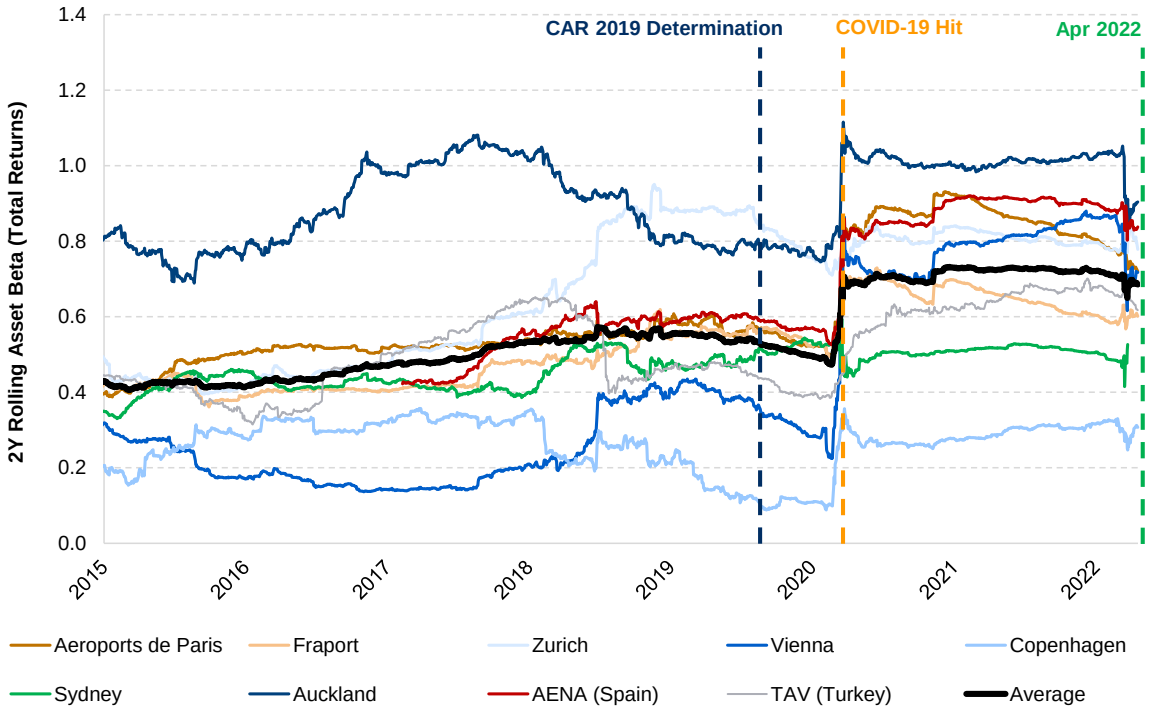
therefore pandemic risk. The rationale for using current market estimates is that there is still uncertainty around COVID-19 risks, and investors' perception of risk has changed.

11.2.4 When selecting the most appropriate comparators, NERA started by looking at the set of 9 comparator airports which both NERA and the Commission/SE had relied on in the 2019 Determination: AENA, AdP, Auckland, Copenhagen, Fraport, Sydney, TAV (Turkey), Vienna and Zurich.

11.2.5 The graph below sets out the 2-year empirical asset beta estimates for these comparator airports. This shows that asset betas generally increased across all these comparators, with average beta increasing by around 0.2 between August 2019 (SE cut-off date) to April 2022. This increase was driven by a step change in beta risk in early 2020, coinciding with the global spread of COVID-19.

11.2.6 2Y asset betas increased (on average) by 0.2 since 2019 Determination, driven by a step change in beta risk since early 2020.

FIGURE 35: TOTAL RETURNS VS YEAR



Note: NERA calculations use daily data and regional stock indices, except for Sydney, New Zealand, and Turkey, where we use local indices. Asset beta estimates de-levered using net debt and Miller formula. ADP and Fraport estimates based on net debt derived from the annual reports. Cut-off date is 18 April 2022 for all comparators except Sydney Airport, which was delisted on 9 February 2022 following its acquisition by private investors. Source: NERA analysis.

11.2.7 NERA then carried out further analysis whereby it reduced the original comparator set down to three airports AENA, AdP and Zurich as these were deemed to be the closest comparators for Dublin Airport based on their regulatory framework. This selection was consistent with the CAA's view for Heathrow and SE's view in its 2020 report for French airports.

11.2.8 In summary in approach 1, NERA estimated an asset beta of 0.72 to 0.84 based on 2-year asset betas for AENA, AdP and Zurich, which it considers to be the closest comparators to Dublin Airport. This increases relative to the 2019 Determination of 0.50 reflects the different comparator set and the general increase in betas observed since 2019 (0.2 increase in average airport betas).

11.2.9 For completeness of review NERA also considered a second approach to the estimation of the asset beta based on the methodology used by the CAA in the UK. The CAA Initial Proposals for Heathrow Airport Limited (HAL) for the forthcoming price control (H7) uses an approach to the cost of equity, which places weight on data from both before and after the pandemic. The CAA estimates a regression drawing on both pandemic and pre-pandemic data and it weights the pandemic data assuming that a pandemic event has a one-in-twenty or one-in-fifty year probability[29]. Using this approach, the CAA estimates the impact of a pandemic event to increase the pre-COVID asset beta by 0.04 to 0.14, depending on the assumptions of the frequency and duration of a future pandemic.

11.2.10 In approach 2, NERA applied the CAA methodology where it initially estimated the Dublin Airport's pre-pandemic asset beta to be at least 0.6 as per its 2019 cost of capital report[30] and it then combined this with the CAA's estimate of a pandemic uplift (0.04 to 0.14) to derive an asset beta range of 0.64 to 0.74.

11.2.11 There is both merit and regulatory precedence for both asset beta approaches considered as part of the NERA review and outlined in Appendix 6.

11.3 Total Market Return (TMR)

11.3.1 NERA estimated a (real) TMR range of 6.8 per cent to 7 per cent based on historical long-run evidence. They relied on the Blume averaging method, holding periods of 1 to 5 years (consistent with equity market evidence) and Irish and World markets (given European market sensitivity to outliers). The higher estimate relative to the 2019 Determination of 6.4 per cent reflects the difference between the NERA preference to rely exclusively on historical realised TMR, as opposed to the Commission/SE which also relied on dividend growth models which we consider subjective, differences in holding periods and the use of World TMR estimates, as well as an increase in historical returns since 2019.

[29] CAA (October 2021), Economic regulation of Heathrow Airport Limited: H7 Initial Proposals – Section 2: Financial Issues, pp.43 to 54.

[30] NERA (1 July 2019), Cost of Capital for Dublin Airport for 2019 Determination, Section 2.

11.4 Real Rate of Return (RfR)

11.4.1 NERA estimate a (real) RfR range of -0.94 to -0.60 per cent based on: i) 1-year, 2-year and 5-year average of Irish 10-year nominal government bonds; ii) Irish forward rate adjustment based on 10-year yields over 2023-2026; and iii) long-run inflation assumption of 2 per cent. The lower end of the revised range is lower than the 2019 Determination lower range of -0.6 per cent, this is driven by the lower yields observed since 2019, but partially offset by the expected increase in Irish yields over the 2023-2026 period.

11.5 Cost of Debt

11.5.1 NERA estimate a (real) cost of debt of -0.23 to 0 per cent. This approach is based on a weighted average between: i) cost of embedded debt of -0.46 per cent, based on daa provided data; ii) cost of new debt range of 0.18 to 0.63 per cent, based on 1-year, 2-year and 5-year averages of iBoxx non-financials 10-year plus index and a forward rate adjustment as per RfR. This revised cost of debt assumes a 2 per cent long-run inflation assumption, a 26 per cent share of new debt (as per daa data) and a 10 to 20bps transaction cost allowance based on UK regulatory precedent.

11.6 Gearing

11.6.1 In the revised WACC estimate NERA use a gearing of 50 per cent, this is consistent with the assumption used in the 2019 Determination.

11.7 Aiming Up

11.7.1 In assessing the WACC, there is significant scope for error in estimating cost of capital parameters. There are also far greater costs of setting an allowed return that is too low to attract investment, in terms of an inability to maintain current infrastructure and fund capacity investments, relative to the cost of setting the cost of capital too high on this basis measures such as the inclusion of an aiming up component must be considered for inclusion in the WACC calculation.

11.7.2 In the current market environment, the concept of aiming up becomes even more crucial given the extreme downside risk witnessed during COVID-19 which may deter future investments if left uncompensated. Overall, there has been no material change to the evidence base that the Commission/SE considered in the 2019 Determination on aiming-up, therefore on this basis, NERA adopted an aiming-up component of 50 bps as per its 2019 decision. We believe that this aiming up allowance will be a critical component of the WACC and will be necessary to preserve the airport's financeability.

11.8 Conclusion

11.8.1 NERA have recommended a cost of capital allowance of two alternative cost of capital ranges for the regulatory period 2023-2026 based on two alternative approaches to the calculation

of the cost of equity. This has resulted in a range of 6.2% to 7.4% for approach 1 and for a range of 5.5% to 6.6% for approach 2.

11.8.2 Dublin Airport favours approach 2 to the estimation of the cost of equity giving the strong regulatory precedent for this approach and on this basis, we would request a cost of capital for 2023-2026 of 6.6% which is the upper bound of the WACC calculation range using this methodology.

11.8.3 While we accept that this is a higher WACC than the current allowance in the 2019 Determination we believe this to be appropriate as this reflects the substantive increase in risk that Dublin Airport has experienced arising from the current COVID-19 outbreak, the ongoing pandemic threat and the high level of market uncertainty that will prevail in the next regulatory period as we move towards recovery while dealing with various ongoing market risks.

11.8.4 Full details of the NERA reassessment of the cost of capital for Dublin Airport for 2023-2026 can be found in Appendix 6 of this document.

Cost of Capital Chapter Summary:

- Dublin Airport has experienced a substantive increase in risk due to the pandemic and faces a high level of market uncertainty going forward.
- NERA have recommended two alternative cost of capital ranges for the regulatory period 2023-2026 based on two alternative approaches to the calculation of the cost of equity. This has resulted in a range of 6.2% to 7.44% for approach 1 and for a range of 5.5% to 6.6% for approach 2.
- Higher level of risk has driven an overall increase in the asset beta.
- Dublin Airport has adopted approach 2 to the estimation of the cost of equity.
- Overall, we request a cost of capital for 2023-2026 of 6.6% which is the upper bound of the WACC calculation range using this methodology.

12 Financeability

DublinAirport

12. Financeability

12.1 Introduction

12.1.1 Dublin Airport survived the passenger reduction and financial losses from COVID-19 due to the €1bn of liquidity that was in place in December 2019 and its ability to access the debt markets after the crisis hit. Without this, more drastic action would have had to been taken, in particular around the two critical capital projects that were ongoing at the time (North Runway and HBS). It is worth noting that other airports have had to reduce their capital spend by up to 80% during 2020 and 2021.

12.1.2 Dublin Airport's ability to access the funding markets in 2020 and again, on a smaller scale, in 2021, was enabled by a) having a credible track record in the financial markets and b) the general central bank liquidity support for debt markets. This track record was built up over the past two decades where Dublin Airport has consistently held a credit rating above BBB+, demonstrated strong management control over its finances and been supported by the regulatory model in times of crisis.

12.1.3 Financial viability and financeability will a key component of the first pricing determination in the post COVID environment. The pricing decision will need to ensure that Dublin Airport can support existing, elevated debt levels, raise further debt to invest in the agreed capital plans and, most importantly, continue operating.

12.1.4 Dublin Airport's net debt will have almost doubled from €[redacted]m in December 2019 to c.€[redacted]bn by December 2022, while the capital investment programme required in 2023-2026 will be of similar value as was initially required for 2020-2024. The impact of this has reduced both the equity value of Dublin Airport to €[redacted]bn, €[redacted]bn lower than the 2019 forecast position and its credit metrics with Net Debt / EBITDA trending above [redacted]x and FFO: Net Debt ranging from below [redacted]% (these metrics fall out of the Commission's 2019 target Net Debt/EBITDA ratio of less than 5x and FFO/Net Debt ratio above 15%).

12.1.5 The upcoming determination period will be characterised by investment in capacity, sustainability, digitalisation and innovation.

12.1.6 New debt of €[redacted]bnm is expected to be required out to 2028. As such, having a financeable determination will have real world implications in the coming years and not allowing a financeable Dublin Airport will result in a reduced level of capital investment and reduced capacity for airlines out to 2030.

12.1.7 To be able to raise this debt, Dublin Airport will require:

- A stand-alone credit rating of no less than BBB+; requiring a minimum FFO: Net debt >15% and Net debt / EBITDA <4x in the base case;

- Visible support from the regulatory regime both in response to the economic damage to date and to deliver the capacity for 40mppa and furthering its sustainable development.
- A robust and supported ESG story; reflecting the changed investor attitudes.

12.1.8 Given the elevated uncertainty regarding the economic outlook, the cyclical nature of the air transport industry and Dublin Airport's vulnerability to such demand shocks, it must be emphasised that financial viability must be determined by assessing potential downside/shock scenarios to provide strong assurance of robustness.

12.2 Impact of COVID-19 on Dublin Airport Financeability & Actions Taken

12.2.1 As covered elsewhere, COVID-19 resulted in a 77% reduction in passengers in 2020 and 2021, compared to the 2019 price cap determination, and is expected to have a total impact of -63% over the three years to December 2022.

12.2.2 In financial terms, this has reduced EBITDA by -€[redacted]bn in 2020 and 2021, including restructuring costs. This is expected to grow to -€[redacted]bn in 2022.

12.2.3 Dublin Airport management took immediate action to mitigate the loss of revenues, implementing €[redacted]m of operating cost savings across 2020 and 2021 through reduced working hours, cancelling performance related pay, implementing a pay freeze and launching a voluntary severance scheme. All available government supports were also maximised with €132m received across 2020 & 2021 (payroll supports €75m and rates rebates worth €57m).

12.2.4 Further mitigation of COVID losses in the form of capex deferrals have also been necessary. Across 2020 and 2021, €[redacted]bn of capex allowance has not been spend, with this anticipated to grow to €[redacted]bn in 2022.

12.2.5 The result of all this is a doubling of Dublin Airport's net debt from €[redacted]m in 2020 to €[redacted]bn at end 2022.

12.2.6 This increase in net debt, plus the additional risk in the aviation industry required daa to draw down €[redacted]bn of additional debt and upsize its revolving credit facility by €[redacted]m to €[redacted]m. The €[redacted] of debt drawn consisted of €[redacted]m EIB funded debt and raising €[redacted]m in October 2020 plus a further €[redacted]m in September 2021 on the Eurobond market.

Fundraising activities during COVID
The EIB €[redacted]m additional debt and the €[redacted]m increase of the RCF to €[redacted]m were agreed prior to the onset of the impact of COVID in March 2020. The €[redacted]m of new debt drawn down in October 2020 and September 2021 were new facilities and are described below.

October 2020: €[redacted] Eurobond; 12 year term; 1.601% interest rate
The market was relatively volatile at the time as it was pre-vaccine, new variants in circulation and Ireland was heading into its second lockdown. This resulted in a "no-go" call in mid-October, pushing the fundraising out to the end of October.
The orderbook closed at c. €[redacted]bn.
Pricing was challenging and required an increase of some 20bps on the day to get the deal closed. The new issue premium was estimated to be in the 30-40bps range (in excess of the normal 10-20bps range).

September 2021: €[redacted]m tap of June 2028 Eurobond; 7 year term; 0.53% interest rate
This was an opportunistic funding round, taking advantage of the level of liquidity in the Eurobond market in 2021. The orderbook closed at c.€[redacted]m.

12.3 Funding Capacity Development Required

12.3.1 In December 2019, Dublin Airport commenced the 2020 to 2024 determination period with net debt of [redacted]m, the lowest level in a decade and with debt metrics which allowed headroom for this to grow as the allowed capex of €2.3bn was invested over the regulatory period.

12.3.2 Dublin Airport will now enter the upcoming determination with net debt at €[redacted]bn, and a likely CIP of €3bn (including the balance of PACE projects). The capital investment requirements have increased from 2019, which focused on capacity, maintenance and digitalisation, to now include the increased requirements around sustainability and decarbonisation.

12.3.3 To ensure financial viability over the next determination period, the Commission must enable Dublin Airport to maintain its investment credit rating to minimise financial risk, access funding markets and raise debt at a reasonable cost and terms.

12.4 New Debt Requirement

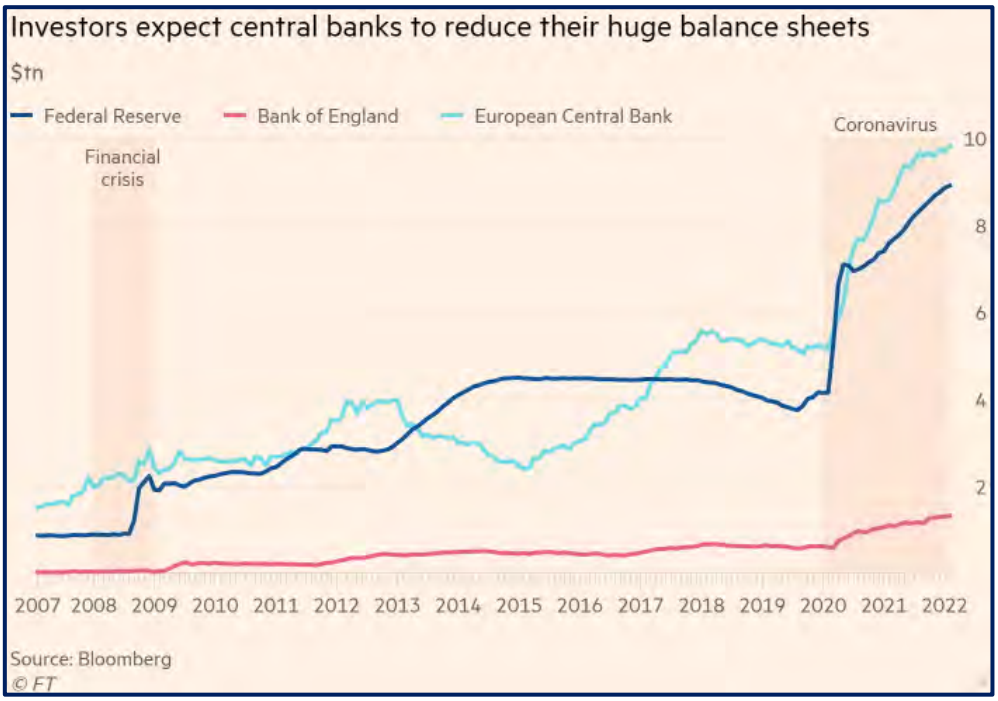
12.4.1 This level of investment, along with gross debt repayments of €[redacted]m and increased liquidity, is anticipated to create a funding requirement of €[redacted]bn (including the refinancing of the 2028 bond), plus a refinancing of the RCF by March 2027.

12.4.2 With the level of capital investment required, and the consequent increase in net debt, it will be necessary to ensure that sufficient liquidity is in place by 2024, when key capital commitments are made, to complete the capital programme in the event of a downturn in passengers.

12.5 Funding and Market Expectations

12.5.1 Dublin Airport succeeded in raising new facilities of €[redacted]m during the COVID period. This was achieved as investors looked through the immediate crisis to the expected recovery and also, more materially, central banks in Europe and the US doubled the level of liquidity they were putting into the market.

FIGURE 36: ECB, FED & BOE BALANCE SHEETS 2007 TO 2022

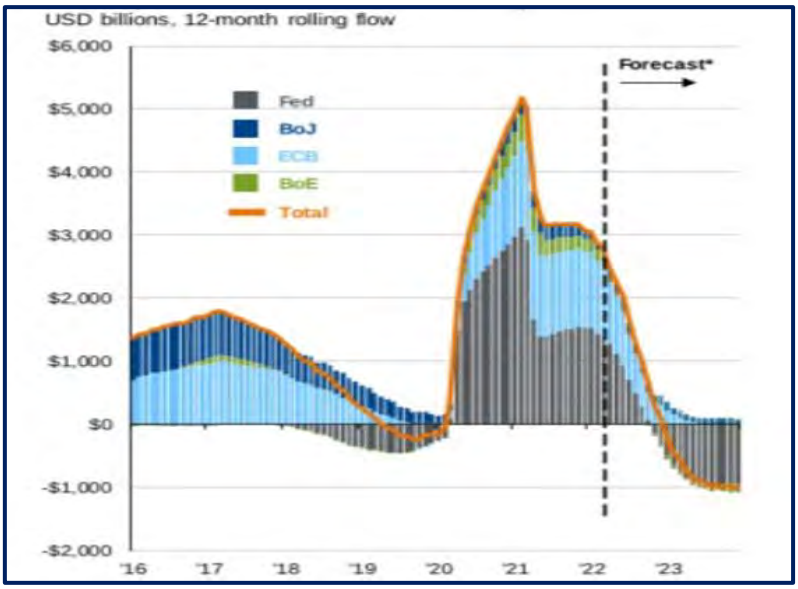


12.5.2 If Dublin Airport is to meet user and government demands in terms of capacity improvements and sustainability targets, new debt of €[redacted]bn will need to be raised by 2028.

12.5.3 The credit markets will not be supported by the major Central Banks over the period of this determination. The ECB has confirmed it plans to reduce bond market purchases over the coming three months and phase them at some point in the third quarter of 2022[31]. JP Morgan is forecasting that the ECB will have ceased quantitative easing in 2023, while the Federal Reserve will cease purchasing bonds this year and start selling assets next year. Without this liquidity, funding Dublin Airport will be significantly more challenging and will be focused on Dublin Airport's individual credit story, and how that compares to that of its competitors in the market.

[31] ECB sticks with plans to gradually roll out of QE - Independent.ie

FIGURE 37: DEVELOPED MARKET CENTRAL BANK BOND PURCHASES



(Source: JP Morgan)

12.5.4 Already in 2022 activity in the capital markets has shrunk considerably. BNP Paribas has reported that Euro Investment-Grade issuances are -16% Q1 2022 Vs Q1 2021, with GBP -22% and USD -25%. The same report also shows 5yr Euro mid-swaps up +93.9 bps on 31 March 2022 Vs 4 January 2022 while 10yr were up +85.5 bps.

12.5.5 The Commission's overall pricing decision and financeability assessment is to be made in this market.

12.5.6 The pricing and allowed projects for the upcoming determination period must set up Dublin Airport to meet market expectations. This will revolve around, but not be limited to:

- Dublin Airport's Credit Rating
- Dublin Airport's ESG targets and credibility
- Dublin Airport's liquidity

12.6 Dublin Airport Credit Rating Requirements

12.6.1 To ensure Dublin Airport can raise the necessary funds on acceptable terms through the different market conditions, a credit rating of not less than BBB+ is required. This is particularly relevant given the current debt levels and significant level of future debt required.

12.6.2 Targeting a credit rating of a BBB+ for Dublin Airport will allow headroom, in a highly cyclical and currently weakened industry, for a further downgrade to BBB. A further downgrade to BBB- would have severe negative consequences in relation to Dublin Airport's ability to access

capital markets, ability to raise the target financing amount and at optimal terms of such financing (higher margins, shorter maturities and potential requirement for onerous financial covenants which would severely restrict the business).

S&P Credit Rating Methodology

Dublin Airport's credit rating is determined by S&P applying their Credit Rating Methodology. In analysing a corporate, S&P assesses risk, competitive position, published financials and forecast future financials to assign a Business Risk Profile ("BRP") and a Financial Risk Profile ("FRP") to the company.

BRP: Business Risk Profile incorporates such factors as country risk, environment, company position, business and geographic diversification, and management strategy. Regulatory support has historically been a factor in the assessment of daa Group's BRP.
FRP: Financial Risk Profile incorporates such factors as risk management, capitalization, earnings, funding and liquidity, accounting, and governance. The FRP is assigned based on financial ratios, with most emphasis applied to FFO: Net Debt and Net debt / EBITDA.

These profiles are then used to calculate an anchor credit rating for the corporate. This rating can be changed, positively or negatively, based on S&P's assessment of the effect of six modifiers.

12.6.3 Dublin Airport has historically been determined to have a "Strong" BRP. This has not been formally considered in the context of a post COVID environment and S&P have noted that this could be lowered "if daa's competitive position weakens, for instance due to higher volatility of cash flows or profit margins below 30% in normal times".

12.6.4 With this "Strong" BRP, an FRP of "Intermediate" is required, with a minimum FFO: Net debt >13% and Net debt / EBITDA <4x (with a one notch slippage allowed).

TABLE 26: FINANCIAL RISK PROFILE

	Core Ratios		
Financial Risk Profile	FFO / net debt (%)	Net debt / EBITDA (x)	**Rating based on "Strong" Business Risk Profile**
Minimal	25+	Less than 2	AA / AA-
Modest	23 – 35	2-3	A+ / A
Intermediate	13 – 23	3-4	A- / BBB+
Significant	9 – 13	4-5	BBB
Aggressive	6 – 9	5-6	BB+
Highly leveraged	Less than 6	Greater than 6	BB

12.6.5 The 2019 Determination applied the Centrus recommendation to target FFO: Net Debt ratio above 15% and a Net Debt/EBITDA ratio of less than 5.0x. Allowing Net Debt / EBITDA to exceed the existing threshold of 4.0x for "Intermediate" was tolerable in 2019 when low

interest rates were forecast to remain in place. However, this needs to be re-examined for the upcoming determination and Dublin Airport's view is that the target should align with S&P methodology.

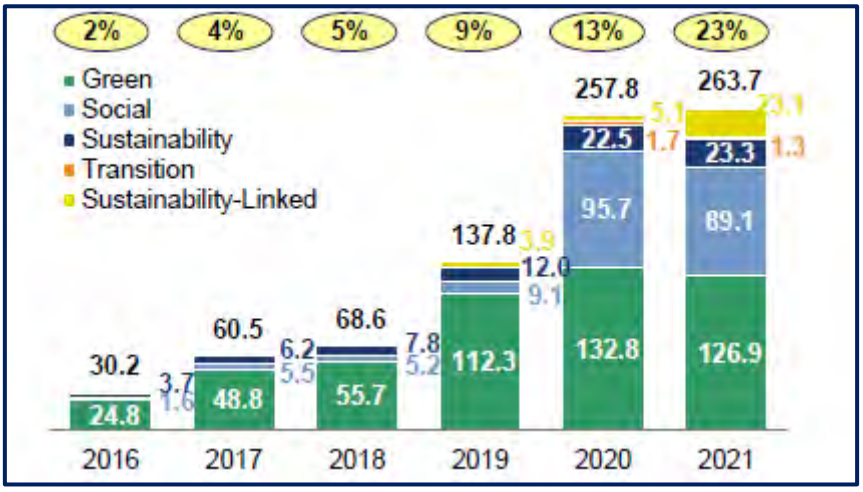
12.6.6 For the coming review period, Net Debt / EBITDA is the most relevant metric for testing the financial viability of the determined price cap. The treatment of interest in the FFO: Net debt calculation can lead to overestimating the future credit metric as:

- The price cap model is run in real terms and as such applies an interest calculation that is far lower than the cash interest that will actually be paid
- In the current circumstances, where interest rates are increasing and expected to continue to do so, it is safer to focus on Net Debt to EBITDA which will not be impacted by increased cost of interest.

12.7 Sustainability targets and credibility

12.7.1 Changing investor attitudes, in line with increased public awareness of the climate crisis are driving change in financial markets and driving demand away from traditional bonds in to ESG bonds (Green Bonds, Social Bonds, Sustainability Bonds, and Sustainability-Linked Bonds). Morgan Stanley's 2020 Sustainable Signals survey found that around 95% of institutional asset owners are integrating or considering integrating sustainable and impact investing in all or part of their portfolios. Also, many customers of corporates and financial institutions are demanding that they establish and pursue binding sustainability targets.

FIGURE 38: EUROPEAN ESG-LABELLED BONDS



(Source: Goldman Sachs)

12.7.2 ESG bonds have increased from 5% of European bond market in 2018 to 23% in 2021. This trend is expected to continue to a point where any funding with traditional investors will require an ESG proposition.

12.7.3 A trio of new EU rules are also set to shake up how ESG financial products are regulated, namely: (1) Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment (the "Taxonomy Regulation"), (2) Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector ("SFDR"), and (3) Regulation (EU) 2019/2089 as regards EU climate transition benchmarks, EU Paris-aligned benchmarks and sustainability-related disclosures for benchmarks (the "Low Carbon Benchmark Regulation").

12.7.4 Dublin Airport's own direct experience in 2020 and 2021 was a marked increase in queries related to sustainability compared to 2016.

12.7.5 S&P have updated their methodology and reporting to include an ESG Credit Indicator, further indicating the importance of ESG within financeability.

12.7.6 Dublin Airport has published a sustainability strategy setting out clear aims and targets across seven core pillars: Carbon, Energy, Waste, Water, Noise, Air and Biodiversity. Having regulatory support to deliver the projects identified to achieve these targets will be required to enable market access in the future.

12.8 S&P Engagement During COVID Period

12.8.1 daa opened 2020 with a credit rating of A/Stable/A-1, with a Stand Alone Credit Profile ("SACP") of A-.

12.8.2 Once the pandemic hit in March 2020, the credit rating was placed on CreditWatch negative. Shortly after this, in July 2020, a one notch downgrade was imposed to bring this down to A-/Negative/A-1, with a SACP of SACP: BBB+, due to anticipated impact on financial ratios from COVID-19.

12.8.3 The S&P report which accompanied the downgrade in July 2020 outlined S&Ps expectation for daa to "to maintain weighted-average adjusted FFO to debt of about 15% in 2021-2022" and is clear that they could "lower the rating by at least one notch if we expected a further weakening of daa's credit metrics, in particular if daa failed to maintain weighted-average FFO to debt sustainably above 13%." A risk to daa's BRP is also highlighted as S&P states that it could "also lower the ratings if daa's competitive position weakens, for instance due to higher volatility of cash flows or profit margins below 30% in normal times".

12.8.4 The following S&P publication in October 2020 repeated the points from July 2020 and also made some clear call outs on regulation at Dublin, liquidity and increased volatility:

- **Regulation**: "Key Strength" Favorable regulatory regime that has supported the company's cash-flow resilience in challenging macroeconomic conditions.
- **Regulation**: We believe that the 2020-2024 price period is going to be challenging for daa… because the regulator reduced the aeronautical charge by 11%… while approving in full a record €2.3 billion capital investment program.
- **Regulation**: There could be some rating upside from a potential tariff reset by the regulator to compensate for the drop in traffic,
- **Liquidity**: "Key Strength" Strong liquidity with more than €800 million in cash and facilities available to hand
- **Liquidity**: downside risks to the timing of recovery of air traffic, which could increase the cash-flow deficit in the next 24 months. Although daa has strong relationship with its banks, it is an infrequent bond issuer.
- Despite facing less competition and having a large proportion of origin-destination passenger traffic, daa's traffic showed more volatility than its peers' during the periods of macroeconomic turmoil.

12.8.5 S&P consistently refers to its belief that the Commission is a supportive regulator. This is listed as a "Key Strength" in each publication on daa and is pointed to in many rating publications as backing up the "Strong" BRP. This belief is based on the previous crisis daa faced, where the Commission's actions were seen to be supportive where prices were increased in response:

- May 2013: "we view as favourable Dublin Airport's regulatory regime, which has supported significant increases in aeronautical tariffs in the past"
- November 2014: "Dublin Airport's regulatory regime has supported the company's cash-flow resilience during the downturn"

12.8.6 There was frequent engagement over 2021, but the next publication was delayed until March 2022 as the uncertainty revolving around a) the length of the pandemic b) the speed of recovery and c) when metrics will recover continually delayed a decision and publication. The March 2022 publication called out:

- *"the recovery path will continue to be volatile and depend on consumers' ability and willingness to travel amid the risk of potential new COVID-19 variants",*
- *"Sustained cost control and high flexibility in capital spending could partially mitigate the weaker operating environment"* – this mitigation will fall away as Dublin Airport commits to projects in 2024/2025.
- "Negative" outlook could be raised to "stable" with strong and sustainable traffic recovery or "**from a potential tariff reset by the regulator to compensate for the drop in traffic as a result of pandemic"**

- "*We could lower the rating by at least one notch if we expected a further weakening of daa's credit metrics, in particular if daa failed to maintain weighted-average FFO to debt sustainably above 13%.*"
- "We expect FFO to debt will improve to above 13% by fiscal 2023."

12.8.7 S&P are a proxy for the market, and they have clearly set out their current expectation:

- The recovery path will be volatile, with Dublin Airport more volatile that its peers due to its negligible share of domestic traffic,
- The favourable regulatory regime, will act as a "buffer against the impact of the pandemic" and a pricing reset would remove the negative outlook for Dublin Airport,
- Financial flexibility, through high liquidity or discretion over uncommitted capex is a key tool for airports in this uncertain climate,
- FFO: Net debt needs to recover to >13% by 2023
- ESG is now an important consideration.

12.9 Dublin Airport Liquidity

12.9.1 In times of uncertain earnings, maintaining strong liquidity is crucial to giving confidence to the market that an entity can remain solvent.

12.9.2 This is magnified when the upcoming capital investment is growing into the future, as is the case for Dublin Airport. In a cyclical industry such as aviation, strong liquidity must be maintained in order to meet payment obligations in the face of downturns. S&P measures this by reviewing:

- Sources of liquidity for the upcoming 12 months are at least 1.5 time or more than the uses of cash and at least 1.0 times greater for the subsequent 12 month period;
- Sources of liquidity are greater than uses of cash for the upcoming 12 months even if forecasted EBITDA declines by 30%;
- The likely ability to absorb high impact, low probability events without refinancing;
- Well established, solid relationships with banks; and
- Demonstrate a history of having prudent risk management approach to liquidity.

12.9.3 Dublin Airport anticipates that it will need to increase its available liquidity for the coming regulatory period due to the increased capital investment. This will increase the level of borrowing required over the period.

12.10 Risk and Sensitivity Analysis

12.10.1 It is important to acknowledge that the Dublin Airport building blocks which make up the financial forecast under review are, in fact, just forecasts and as such already contain a risk

that they are not likely to play out as planned. It is therefore crucial that fair and varied sensitivities on all building block assumptions are reviewed when determining a financially robust price cap.

12.10.2 It is easy to assume that once the recovery from COVID has commenced it will continue to do so in a linear trajectory. This is not likely to be the case as the bump in traffic being seen in summer 2022 is probably due to the pent-up demand from two years of minimal travel, making the winter 22/23 and summer 2023 demand levels less clear. Heathrow directly called this out in their Q1 2022 results, stating that "*demand remains very volatile and we expect these passenger numbers to drop off significantly after the summer.*" HSBC have also called out this risk it its Q1'22 results preview for European Aviation ("*Once consumers undertake their first international holiday since the pandemic, the power of that pent-up demand will drop away and normal economic factors may assert themselves*").

12.10.3 These macro factors are increasingly less favourable to the aviation industry:

- **Inflation** is running at its highest level in decades, eating into the disposable income that is used for leisure travel
- **Fuel and other cost increases** for airlines will impact on the viability of marginal routes
- **ESG requirements** will both increase the cost of travel and reduce the propensity for both leisure and business travel
- **Digitisation and virtual working** have already had a substantial impact on business travel
- **War in Ukraine** is predicted to have a particular impact on North American traffic to Europe (HSBC), a market which Dublin Airport has a high level of exposure through on both the Long-Haul and Short-Haul sides of its connecting routes (impacting not only traffic from America but also removing the viability of many short-haul connecting routes). Airspace restrictions are also increasing the cost of flying between Europe and Asia, again testing the viability of marginal routes.
- All of these risks are magnified, and are likely to result in further airline failures over the coming period, when applied to a industry which has **doubled debt levels** over the COVID period and which is facing into a period of increase interest costs.
- Dublin Airport has an existing **capacity constraint at 32mppa** and have returned to Summer 2019 levels of overnight aircraft in Summer 2022. While this is manageable from a stand plan perspective in 2022 there will be no new stands delivered prior to 2024 at the earliest, so incremental passenger growth may not be deliverable.

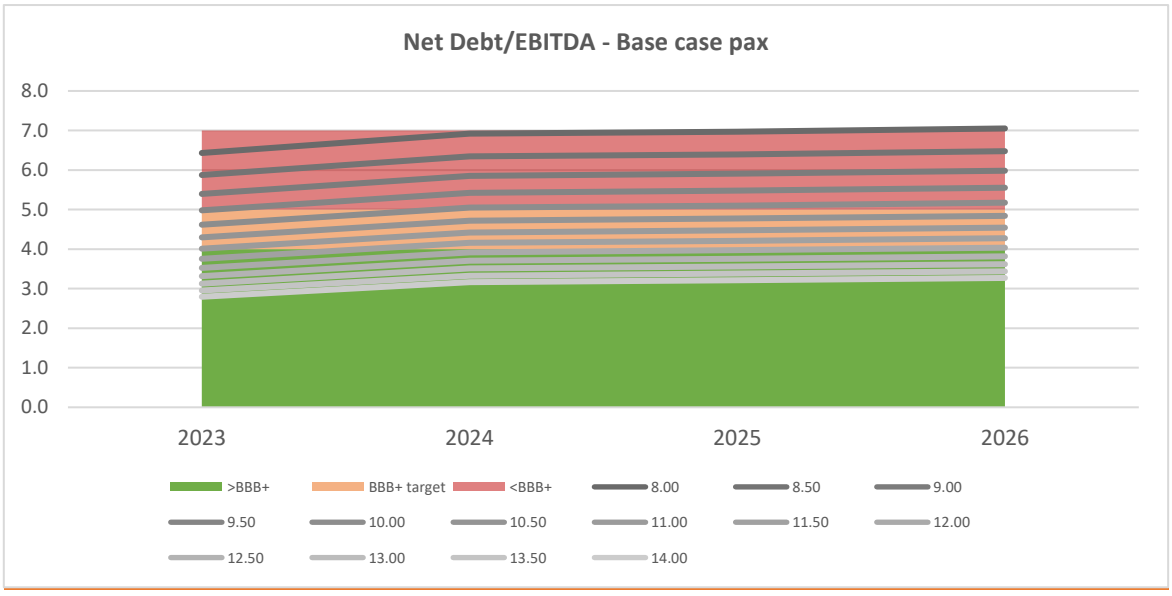
12.10.4 In the HSBC Q1'22 results preview for European Aviation a plausible scenario was set out: "*Continued geopolitical tensions could leave the oil price at elevated levels, despite weakening economic prospects. European airlines could remain excluded from direct routings to Asia. Consumer demand for air travel might weaken after passengers enjoy their first post-pandemic holiday. European airline fuel hedges may roll off, removing their competitive advantage over other unhedged international airlines*".

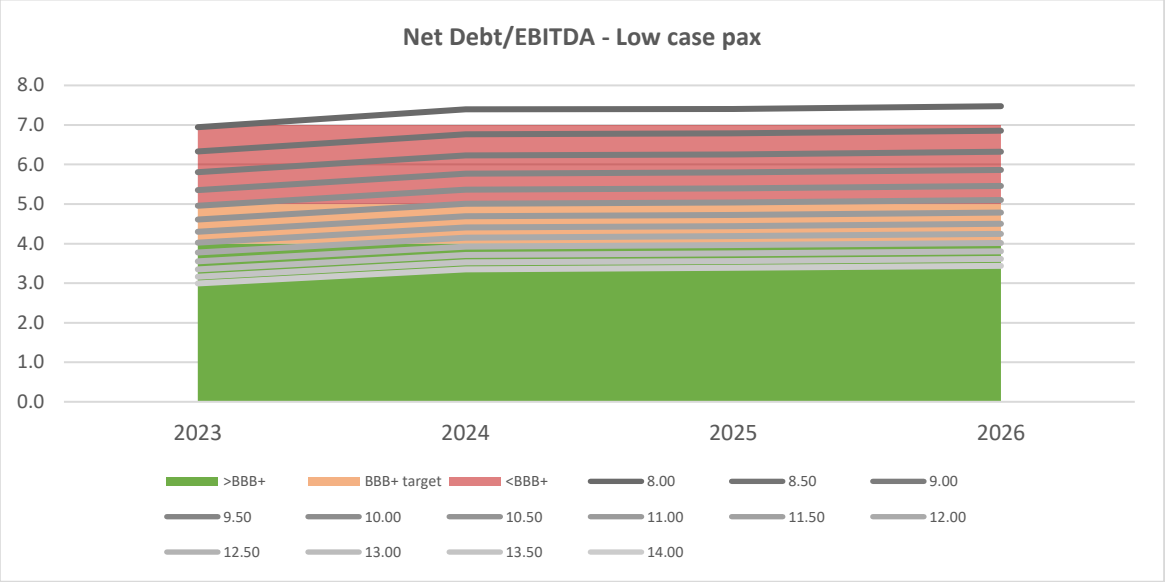
12.10.5 To understand the impact of these possible risks, Dublin Airport has carried out sensitivities on different passenger demand and price cap levels. These shows that a) the proposed level of pricing is appropriate to achieve a BBB+ credit rating and delivers a financially viable regulatory period and b) any pricing below €12.00 will begin to stress the credit rating.

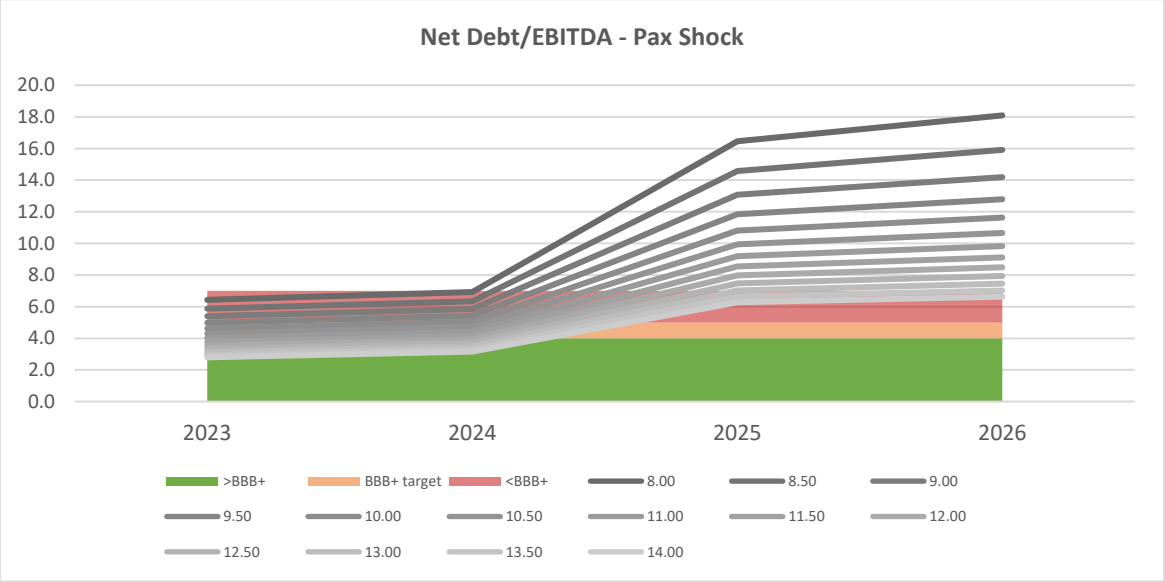
12.10.6 The sensitivities shown below focus on Net Debt / EBITDA as this is a more relevant credit metric for a forecast in real prices and when interest rates are due to increase.

- Within the base case pax, the metric begins to exceed 4.0x (S&Ps threshold for intermediate FRP) at €12.00.
- For a moderately low case pax (-1m in each year), the metric begins to exceed 4.0x (S&Ps threshold for intermediate FRP) at €12.50.
- The 2024 passenger shock scenario illustrate how vulnerable Dublin Airport will be in 2024 to a material change in pax. It is for this reason that sufficient liquidity will need to be in place to complete the capital programme before commitments are made in 2024.

FIGURE 39 – NET DEBT / EBITDA SENSITIVITY ANALYSIS







Financeability Chapter Summary:

- Dublin Airport will enter the upcoming determination with net debt at €[redacted]bn, and a likely CIP of €2.5bn making financeability a critical factor for 2023-2026.
- This level of investment, along with gross debt repayments of €[redacted]m and increased liquidity, is anticipated to create a funding requirement of €[redacted]bn, plus a refinancing of the RCF by March 2027.
- To ensure Dublin Airport can raise the necessary funds on acceptable terms through the different market conditions, a credit rating of not less than BBB+ is required.

13 Conclusion

DublinAirport

13. Conclusion

13.1.1 As a small, open economy, Ireland is crucially dependent on its air links to facilitate its economy. Dublin Airport therefore plays a vital role as a strategic enabler for business growth and economic development and is essential for numerous sectors including export trade and tourism.

13.1.2 Our strategy as an airport is based around meeting the high expectations of airport users and stakeholders now and whilst balancing securing our long-term viability by preparing appropriately for meeting future needs. Our focus for the next regulatory period will be on optimising our post-pandemic recovery and preparing responsibly for the next phase of our organisation's and industry's history.

13.1.3 We will be working to maintain an efficient airport operation, but this can only be achieved if Dublin Airport is allowed to recover sufficient operating expenditure to cover its expenses and provide for optimal resourcing.

13.1.4 Dublin Airport is one of the cheapest airports in Europe having one of the lowest aeronautical pricing levels of comparable airports. We currently offer the best value for money of any European airport. Going forward Dublin's airport charges will remain among the lowest in Europe even if the price cap was to increase by circa €3. On this basis airport charges need to increase to better reflect the underlying cost of the provision of aeronautical services.

13.1.5 The aviation industry has suffered a significant shock over the past two years due to the wide-ranging impact of the global pandemic. We are now seeing a rapid recovery in passenger demand and the addition of capacity by airlines. There is opportunity to focus on our passengers and customers and delivering positive experiences across all touchpoints, online and offline. This will be enabled with appropriate capital investment, engaged partners and the assistance of a supportive regulatory regime.

13.1.6 Dublin Airport is committed to providing the capacity for 40mppa and furthering our sustainable development. These dual aims exist to meet customer and passenger needs and can only be achieved with a credible price path enabled by the Commission. We must collectively acknowledge that the infrastructure required will span multiples of this current review window. The work we do between now and 2026 must allow for a post pandemic industry recovery while also enabling this long-term airport vision and allowing Dublin Airport to continue to facilitate Ireland's broader national economic interests. This however can only be achieved if Dublin Airport is permitting a sufficient capital expenditure allowance to implement the investment set out in CIP2020+.