

**Draft Decision**  
**on an**  
**Interim Review of the 2019 Determination**  
**in relation to**  
**2023 to 2026**

Commission Paper 3/2022

22 July 2022

Commission for Aviation Regulation

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## Table of Contents

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- 1. Executive Summary ..... 2
- 2. Notice of Making a Determination..... 9
- 3. Introduction and Background..... 10
- 4. Substantial Grounds, Scope and Objective ..... 14
- 5. Statutory Objectives and Policy..... 15
- 6. Approach to Regulation..... 32
- 7. Passenger Forecast ..... 36
- 8. Operating Expenditure..... 55
- 9. Commercial Revenues ..... 68
- 10. Cost of Capital ..... 84
- 11. Capital Costs ..... 100
- 12. Financing, Risk, and Financial Viability ..... 122
- 13. Quality of Service..... 135
- 14. Other Issues..... 151
- 15. Appendix 1: Elasticity Estimations..... 153
- 16. Appendix 2: Assessment of Capital Investment Programme by Project... 161

## 1. Executive Summary

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- 1.1 This year, we are conducting a comprehensive review of the 2019 Determination on the maximum level of Airport Charges at Dublin Airport. In preparation for this, we started the process of engagement with stakeholders in February, running a public consultation on the issues and methodologies. This paper consults on our Draft Decision, and towards the end of the year we expect to make our Final Decision.
- 1.2 The 2019 Determination, published in October 2019, set the maximum level of Airport Charges at Dublin Airport for 2020-2024. In early 2020, the onset of the COVID-19 pandemic had an unprecedented impact on the aviation industry, including Dublin Airport. Passenger numbers at Dublin fell by approximately 75% in 2020 and 2021, compared to 2019. The recovery is underway, and we expect traffic in the peak summer months this year to reach 80% to 90% of 2019 levels.
- 1.3 The outbreak of the pandemic led to our decision to carry out the first Interim Review of the 2019 Determination in 2020, in which sought to address the impact of the pandemic on the regulatory settlements for 2020 and 2021 in a targeted and proportionate manner.
- 1.4 In 2021, we carried out a second Interim Review which broadly continued this approach into 2022. The scope of both reviews did not include reopening all the underlying assumptions and forecasts to derive new base price caps, however in our decision on the second review we committed to carrying out a full review in 2022. We proposed that the 2022 review would also extend the length of the regulatory period by two years. Thus, we are determining revised regulatory settlements for 2023 and 2024 and new settlements for 2025 and 2026.
- 1.5 The proposed two-year extension is contingent on the enactment of the Air Navigation and Transport Bill, 2020 (ANTB). At the time of publication, the ANTB is at committee stage in the Seanad.
- 1.6 In making, or amending, a determination on the maximum level of Airport Charges at Dublin Airport, we are guided by a range of Statutory Objectives and due regard factors. The thrust of these objectives relates to economic efficiency and seeking to maximise the value that Dublin Airport provides to current and future users. Our objectives will be amended by the ANTB. Our economic efficiency related objectives will remain in place, with an additional focus given to promotion of sustainability and climate change related policy.
- 1.7 We are proposing an average untriggered price cap of €8.52 for the period (€9.11 if all triggers are activated), this will start at €8.68 in 2023 and will be €8.60, €8.29 and €8.48 in 2024, 2025 and 2026 respectively (see Table 1.1 below for the triggered price caps in those years).
- 1.8 The price cap is set in real prices, which means that it excludes inflation. All figures in this document are in February 2022 prices, unless stated otherwise. The price cap will be updated each year to reflect actual inflation in the period. This means that Dublin Airport is protected from general inflation risk, which is particularly relevant in the current high and unpredictable inflation environment.

1.9 Table 1.1 also compares our proposals with the original price caps set in 2019. In the absence of interim reviews, the price cap for 2023 and 2024 would likely have been in line with the '2019 Determination with reprofiling triggers' given that the specified trigger events are now not likely to occur by 2024.

**Table 1.1: Real Price Caps comparison (€)**

	2020	2021	2022	2023	2024	2025	2026	Average
Original 2019 Determination Base	7.97	7.97	8.24	8.56	8.85			<b>8.32</b>
2019 Determination with reprofiling triggers	7.64	6.44	7.26	7.19	7.13			
CAR Base Price				8.68	8.60	8.29	8.48	<b>8.52</b>
CAR with triggers				8.68	8.91	9.02	9.81	<b>9.11</b>
Dublin Airport Proposals				13.04	13.60	13.89	14.77	<b>13.83</b>

Source: CAR, and the Varied 2019 Determination (in real prices), Dublin Airport Regulatory Proposition addendum. Reprofiling triggers include Terminal 2 Box 2.

1.10 In addition to adjustments for inflation or deflation, the price caps can change for a number of other reasons:

- Two runway triggers remain active and would add about €0.30 and €0.02 when the associated trigger events occur.<sup>1</sup> We expect the first to enter the price cap in 2024 and the second in 2026.
- There are triggers associated with about €800m of new Capex allowances. While there is uncertainty as to when these will be added to the price cap, based on planned timelines, we expect that €1.03 would be added to the base price cap by 2026.
- A passthrough mechanism will apply to items for which the cost is largely outside the control of Dublin Airport (e.g., rates and regulatory charges). Upside or downside variation relative to our forecast for these costs will be recoverable after they have been incurred.
- A Quality-of-Service system is in place which puts up to €0.36 annually at risk if Dublin Airport fails to reach specified quality targets. Up to €0.15 could be added if Dublin Airport's performance exceeds bonus thresholds for certain metrics.

1.11 We estimate that the proposed regulatory settlements will allow Dublin Airport collect €1.2bn from Airport Charges over the 4 years, and we estimate a further €1.15bn from Commercial Revenues.

1.12 Our proposals for 2023 and 2024 differ from those originally set in the 2019 Determination for several reasons. First, while we expect traffic to recovery strongly, we are forecasting passenger numbers to be almost 20% lower than the forecasts we used in 2019 for 2023 and 2024. Second, revised timelines on capital investments resulted in less capital expenditure in 2020 to 2022 and less expected in 2023 and

<sup>1</sup> Exact amounts depend on passenger numbers.

2024. Primarily due to lower passenger numbers, we expect operating costs for these years to be less than anticipated in 2019 and finally less passengers means less revenue from commercial offerings such as retail and car parking. These proposals include a cost of capital which is equivalent to the rate we used in 2019.

### *Operational Difficulties at Dublin Airport in 2022*

- 1.13 Like many other airports and aviation stakeholders in 2022, the faster than expected recovery in traffic, combined with factors such as high levels of COVID-19 related sickness absence, has posed a significant operational challenge to Dublin Airport. At times, key quality indicators such as security queue times have frequently exceeded our 30 minute target, on a number of occasions by a large margin. Such issues are complex in nature with multiple causes, and we have recently observed improvements in security queue times relative to earlier in the summer, notwithstanding continued growth in passenger traffic.
- 1.14 This review covers the period 2023 to 2026, and we expect Dublin Airport to provide high-quality service through the period, as it did pre-pandemic. Therefore, from the start of 2023 we are proposing to fully reinstate the quality of service system (with some minor adjustments discussed in Section 13), which will further incentivise this.
- 1.15 We intend to provide operating cost allowances to enable Dublin Airport to meet these standards. However, this does not mean that there should be no controls on costs. It is important that Dublin Airport responds to the increase in traffic in an efficient way.
- 1.16 The solutions to some of these issues are still being developed, and therefore we expect there may be updates to the operating costs in the final decision. For example, we received a new operation plan for security on 17 June. We have conducted a preliminary assessment of this, and the results of our assessment are included in the operating costs, but more work is required prior to the Final Decision.
- 1.17 We will engage with Dublin Airport between now and the Final Decision to ensure that the operating costs we allow for are appropriately calibrated to allow it to deliver the service quality which is expected by passengers, and which is incentivised through the Quality-of-Service system. We will also further engage with our Passenger Advisory Group to ensure the standards match the expectations of passengers.

### *Approach to Regulation*

- 1.18 We are not proposing any changes to our general approach to regulation as part of this review. We follow the approach of the 2019 Determination and previous determinations, amending and setting individual price caps for each year using the Regulatory Asset Base (RAB) based building block approach. For each building block, we use forecasts to arrive at targets.
- 1.19 As part of this review, we consulted on changing the risk allocation given the uncertainty created by the pandemic. No stakeholder supported such a change. We continue to assign most risk within the period to Dublin Airport. We have concluded that, firstly, Dublin Airport is the party best able to manage these risks and secondly, this allocation of risk creates powerful incentives for Dublin Airport to outperform our

targets. Extreme events, such as a pandemic, are best handled by way of interim reviews rather than seeking to develop an *ex-ante* mechanism. With our proposed risk allocation, any outperformance is retained by the airport within the period and redistributed to users in the following period. Underperformance within the period is funded by Dublin Airport.

### *Passenger Forecasts*

- 1.20 Our proposed passenger volume target is 30.1m in 2023, increasing to 35.2m by 2026. In the original 2019 Determination, we forecast traffic would be 37.1m in 2023. We expect that 2024 levels of passenger traffic will be close to the 2019 level.
- 1.21 The pandemic had a devastating impact on passenger traffic. Dublin Airport served 7.4m and 8.5m passengers in 2020 and 2021 respectively. Predicting the timing and trajectory of the recovery has been difficult over the last two years, however, the recovery is now very much underway with June 2022 traffic reaching 87% of 2019 levels.
- 1.22 Our forecasting methodology has changed for 2023 and 2024. We now draw on various pieces of market evidence including forecasts from Dublin Airport, airlines and industry bodies. For 2025 (once traffic reaches the 2019 level) and 2026 we revert to a GDP based model, as in the original 2019 Determination.
- 1.23 Our forecast is higher than Dublin Airport's, which forecasts 27.7m passengers in 2023 growing to 34m by 2026.
- 1.24 When making our Final Decision, we will have data on traffic performance through the summer and into the autumn. Demand for air travel would appear strong, which is reflected in airline capacity plans, however, there are also potential headwinds with high inflation, oil prices and a potential resurgence of COVID-19.

### *Operating Costs*

- 1.25 Our target for operating cost for 2023 is €295.7m, increasing to €327.6m in 2026. This is slightly lower than the target we set in the 2019 Determination for 2023 and 2024, primarily due to our lower forecast passenger numbers compared to what we were expecting in 2019.
- 1.26 We commissioned CEPA/Taylor Airey to update and extend its 2019 bottom-up assessment of Dublin Airport's operating costs. This is a comprehensive study which examines all aspects of Dublin Airport's business and establishes an achievable level of efficient costs for the period. We are aligned with Dublin Airport in relation to costs in 2022, however, there is then divergence as the period proceeds. Dublin Airport is forecasting a steep increase in real costs as the period progresses.
- 1.27 It is important to note that price increases and wage increases due to general inflation will be allowed for throughout the period as we update the price cap for the actual Consumer Price Index (CPI). In addition to inflation, we have forecast real wage growth of an average of 2.3% per year in the period 2023-2026.
- 1.28 We expect significant engagement with Dublin Airport and other stakeholders on

operating costs in the coming months, before we finalise our position for the Final Decision.

### *Commercial Revenues*

- 1.29 We expect a strong rebound in Commercial Revenues at Dublin Airport as passenger traffic returns. Our target for 2023 is €259m growing to €319m in 2026. We differ somewhat with Dublin Airport in terms of the profile across the period, but at a per passenger level we are relatively aligned, forecasting an average revenue per passenger of €8.83 for the four years compared to Dublin Airport's €8.80 per passenger. Our per-passenger target starts lower than Dublin Airport's in 2023 but grows higher by 2026.
- 1.30 We generally expect passengers to return to pre pandemic behaviour in the short term. Therefore, for most categories of Commercial Revenue, we use 2019 per passenger yield as the base from which we forecast 2023 revenues. We then grow the revenues from that base using econometric modelling, establishing relationships between categories of Commercial Revenue and drivers. The main drivers are passenger numbers and GDP.
- 1.31 We have reduced our forecasts by a total of €11m for displacements due to capital investments and similarly added €46m in uplifts for new projects.

### *Cost of Capital*

- 1.32 We commissioned Swiss Economics to update its 2019 report on the cost of capital. Taking the advice of Swiss Economics, we propose a real cost of capital of 4.22% which is the same as the rate set in 2019. There have been movements in both the cost of equity and the cost of debt since 2019, but they offset each other. Equity has increased due to higher equity betas observed in recent market data, while the real cost of debt has reduced due to higher expected inflation.
- 1.33 There is volatility in capital markets currently. In advance of our Final Decision, we will assess more recent data. Specifically, in relation to the beta, we will have more data available to put more weight on the data from 2021 and 2022 than on pre-pandemic data.

### *Capital Expenditure*

- 1.34 In total (return on capital and depreciation), we are proposing capital costs of €219m in 2023, increasing to €290m by 2026. This is lower than the €304m originally set for 2023 in 2019, due to less capital expenditure occurring between 2020 and 2022, and because we have added trigger conditions to almost €800m of Capex which is therefore not remunerated in the base price cap. The trigger projects are capacity projects which include the major north and south apron developments. These projects have uncertain timelines due to the planning process which needs to be completed.
- 1.35 We continue to conclude that the Capital Investment Plan is in the interests of airport users (except for one project), and we propose making allowances for €2.9bn in capital investment which will increase the capacity of the airport to 40 million passengers per

annum, improve the commercial offerings throughout and renew older infrastructure. In addition, a new group of Sustainability projects is proposed which includes €360m of project allowances which are designed to enable the airport to meet its environmental and emissions targets. Some of this investment has already taken place over 2019-2022, and some is expected to take place after 2026.

- 1.36 The only project we propose to not make an allowance for is the Drop off/Pick up kerb access charging project. We believe that significant uncertainty remains in relation to this project, including the commercial proposition and the overall objectives of the project.

### *Financial Viability and Financeability*

- 1.37 We engaged Centrus to assist in the assessment of financeability. The draft report concludes: 1) The Dublin Airport regulated entity would likely have a standalone credit rating very similar to the daa group; 2) Dublin Airport should be able to raise the required debt in the period with a minimum BBB+ credit rating, FFO/Net Debt in the mid-teens and Net Debt/EBITDA of less than 6.0x; 3) Additional downside protection would be achieved if we enabled a path to a Debt/EBITDA of less than 5.0x.
- 1.38 We propose to implement the advice of Centrus in two ways. First, to enable the financeability of the untriggered Capex we propose to bring depreciation from future periods into this period. In total, we are accelerating €60.9m of depreciation, which increases the price cap by an average of €0.46. Second, in relation to the financeability of the triggered Capex, we set the first tranche of remuneration of triggered projects to a level sufficient such that the Net Debt/EBITDA ratio is forecast to remain under 5.0x under the downside protection scenario. That is, 80% of the remuneration commences the year after the project has received full planning permission and the main construction is on site, with the remainder once the project is in operational use.
- 1.39 Our proposal on financeability aims to strike an appropriate balance between enabling the financeability of the regulatory settlements and ensuring users do not bear unnecessary costs in the process.

### *Quality of Service*

- 1.40 From 1 January 2023 we propose to reinstate a comprehensive Quality of Service system. We expect the performance of Dublin Airport to improve to the level expected by passengers. We are providing for sufficient operating costs to enable this, and if Dublin Airport does not meet the standard set there will be downward adjustments to the price cap, with a maximum of €0.36 at risk (or about €12m of revenue per year). The system covers, wait times at central security, wait times for passengers requiring additional assistance, passenger satisfaction survey scores (including cleanliness) and asset uptime and availability.
- 1.41 We held two workshops with the Passenger Advisory Group, and their advice has informed our proposals on the Quality-of-Service system and our Capex allowances.<sup>2</sup>

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<sup>2</sup> <https://www.aviationreg.ie/regulation-of-airport-charges-dublin-airport/passenger-advisory-group.874.html>



### *Dublin Airport's Proposition*

1.42 In parallel to this report, we have published Dublin Airport's redacted regulatory proposition. There is a significant difference between the average price cap we are proposing, which is €9.11 with triggers or €8.52 without, and the average €13.83 as per the latest proposal from Dublin Airport of 30 June. The difference represents over €600m across the period for the untriggered price cap, or €530m for the triggered price cap. The main drivers of the difference are:

- Dublin Airport projects 7m less passengers in total in the period.
- Dublin Airport suggests that operating costs will be €140m higher in the period.
- We have triggered almost €1bn in capital project allowances. This will align remuneration with the timelines of the relevant projects but reduces the base price cap. We also use real prices for the costs of new investments, to avoid double counting inflation.
- We have a lower cost of capital, but counterbalancing this, we have made a financing adjustment.

1.43 Our draft position is relatively close to Dublin Airport on Commercial Revenues, the efficient cost of proposed investments, and that the full capital investment plan (with the exception of one project) is in the interests of airport users.

### *Conclusion*

1.44 This is a consultation document. We invite evidence-based submissions on all aspects of our proposals. We expect that various elements of our proposed regulatory settlements may change between now and the Final Decision, as we will update our proposals for new information and evidence which is presented to us. We will also have regard to any changes in macroeconomic forecasts, changes in passenger demand and changes in financial markets.

1.45 We invite comments on all aspects of the Draft Determination by no later than **5.00 PM, 16 September 2022**. Details on how to respond are in Section 2.

## 2. Notice of Making a Determination

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- 2.1 In accordance with Section 32 (14)(i) of the 2001 Aviation Regulation Act, we hereby give notice of our intention to make amendments to the “Varied 2019 Determination pursuant to Appeals Panel referrals” (CP5/2020).
- 2.2 Pursuant to the 2001 Act, we must allow a statutory consultation period of no less than one month from the date of publication of this notice. As in previous periods, we give notice by way of publishing this Draft Decision. The deadline for receipt of representations is **5pm, 16 September 2022**. The deadline will be strictly applied without exception.
- 2.3 Responses should be titled “Submission on Draft Decision on an Interim Review of the 2019 Determination (CP3/2022)” and sent:
- By email to: Info@aviationreg.ie (preferable); or
  - By post to: 3rd Floor, Alexandra House, Earlsfort Terrace, Dublin 2, D02 W773
- 2.4 We may correspond with interested parties who make submissions, seeking clarification or explanation of their submissions.
- 2.5 Respondents should be aware that we are subject to the provisions of the Freedom of Information legislation. Ordinarily we place all submissions received on our website.<sup>3</sup> We may include the information contained in submissions in reports and elsewhere as required. If a submission contains confidential material, it should be clearly marked as confidential and a redacted version suitable for publication should also be provided.
- 2.6 We do not ordinarily edit submissions. Any party making a submission has sole responsibility for its contents and indemnifies us in relation to any loss or damage of whatever nature and howsoever arising suffered by us as a result of publishing or disseminating the information contained within the submission.

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<sup>3</sup> While we endeavour to ensure that information on our website is up to date and accurate, we accept no responsibility in relation to the accuracy or completeness of our website and expressly exclude any warranty or representations as to its accuracy or completeness.

### 3. Introduction and Background

3.1 This section first lays out our Draft Decision on the maximum level of Airport Charges that daa may levy at Dublin Airport for the period starting 1 January 2023 (inclusive) and ending on 31 December 2026 (inclusive). It then provides an overview of the previous interim reviews of the 2019 Determination.

#### Draft Decision

3.2 Table 3.1 is the yield table. It shows the inputs, under each building block, which we use to arrive at the price cap. It shows the proposed base price caps, and the price cap increases conditional on the progression/delivery of triggered projects.

Table 3.1: Yield Table

	2023	2024	2025	2026
<b>Operating Costs (€m)</b>	<b>295.7</b>	<b>311.6</b>	<b>322.0</b>	<b>327.6</b>
<b>Commercial Revenues (€m)</b>	<b>259.0</b>	<b>280.2</b>	<b>305.0</b>	<b>318.8</b>
Opening RAB (€m)	2300.2	2558.0	2798.8	3055.0
Closing RAB (€m)	2173.6	2414.5	2645.0	2888.0
Standard Depreciation (€m)	105.5	124.9	139.5	160.0
<b>Accelerated Depreciation</b>	<b>21.1</b>	<b>18.6</b>	<b>14.3</b>	<b>7.0</b>
Return on capital - cost of capital (€m)	92.5	102.8	112.5	122.8
<b>Total capital costs (€m)</b>	<b>219.1</b>	<b>246.3</b>	<b>266.3</b>	<b>289.8</b>
<b>Adjustments</b>	<b>5.6</b>			
Required revenue (€m)	261.4	277.7	283.3	298.7
Passengers (m)	30.1	32.3	34.2	35.2
<b>Proposed Base price cap (€)</b>	<b>€8.68</b>	<b>€8.60</b>	<b>€8.29</b>	<b>€8.48</b>
North Runway Forecast Triggers (M2/M3)	€0.00	€0.31	€0.29	€0.30
CIP 2023-2026 Forecast Triggers	€0.00	€0.00	€0.44	€1.03
<b>Forecast Triggered Price cap (€)</b>	<b>€8.68</b>	<b>€8.91</b>	<b>€9.02</b>	<b>€9.81</b>

Source: CAR. The 2023 required revenues includes adjustment for undercollection in 2021 (k factor), and outturn CAR costs.

3.3 The annual price cap is the maximum level of revenue which may be collected from Airport Charges accrued in that year, expressed as a per passenger yield. Airport Charges for the purposes of a determination are defined as per the Airport Charges Directive.<sup>4</sup> They cover, non-exhaustively, charges for taking off, landing and parking aircraft, using airbridges, passenger charges, and relating to transportation of cargo.

3.4 Table 3.1 shows the price caps in real February 2022 prices. Based on our inflation forecasts, which show high inflation for 2023 and 2024 before moderating in 2025 and 2026, the nominal price caps are forecast as set out in Table 3.2. If inflation were to be higher than our forecasts, the nominal price caps actually charged would be higher, and vice versa.

<sup>4</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009L0012>

**Table 3.2: Forecast Nominal Price Caps, and 2022 Actual Price Cap**

	2022A	2023F	2024F	2025F	2026F
Proposed Base Price Cap	€8.11	€9.27	€9.37	€9.21	€9.61
Proposed Price Cap including Triggers	€8.11	€9.27	€9.71	€10.03	€11.12

Source: CAR

### Supporting Evidence

- 3.5 We commissioned four reports to inform certain aspects of our proposals. The draft reports, published alongside this document, relate to:
- efficient operating costs forecasts, by CEPA/Taylor Airey.
  - advice on the efficient cost of capital, by Swiss Economics.
  - an efficiency assessment of the proposed Capital Investment Programme conducted by Steer, in its role as Independent Fund Surveyor (IFS).
  - a review of the financeability of the draft regulatory settlements, by Centrus.
- 3.6 The final reports from consultants will be published alongside our Final Decision. These final reports will consider submissions from stakeholders in response to the content of those reports.
- 3.7 In 2019, we commissioned Helios to carry out fast time simulations of the planned future airfield and terminal buildings, to assess whether the proposed investment programme would allow for 40 million passengers per year to be handled, as intended. Given that many of the planned projects are the same or similar to those originally planned in 2019, we continue to refer to this analysis where relevant.
- 3.8 The financial model showing the calculation of the price caps is also published. We would encourage stakeholders to make use of this model, to test the impact of changes they may wish to propose.

### Structure of Report

- 3.9 The subsequent chapters in this document explain in more detail how we arrived at the proposals in this Draft Decision.
- 3.10 Section 4 sets out the substantial grounds and objective of this review. Section 5 considers our statutory objectives and how we propose to give effect to these, as well as the various statutory factors to which we must have regard. Section 6 describes the general approach to regulation that we have followed.
- 3.11 Sections 7, 8, 9, 10, and 11 address the standard regulatory building blocks of passenger forecasts, operating expenditures, Commercial Revenues, cost of capital and capital costs. In each case, we set out the values we propose to allow for over the next four years and how we settled on these proposed numbers.
- 3.12 Section 12 considers the ability of Dublin Airport to finance the draft regulatory settlements. Section 13 discusses our proposals in relation to Quality-of-Service at Dublin Airport. Section 14 deals with miscellaneous issues that do not fit in other

sections.

- 3.13 There are also two appendices to this report. Appendix 1 provides details on econometrics models for forecasting Commercial Revenues and Passenger Forecasts. Appendix 2 lays out our project-level assessment, and related summary table, on our proposed treatment of Dublin Airport's proposed capital projects.

## Background

- 3.14 The 2019 Determination, published in October 2019, set the price caps at Dublin Airport for 2020-2024. Following publication in October 2019, the determination was appealed by Dublin Airport and Ryanair on a range of grounds. The Commission made some relatively small reductions to the price caps for 2022 and 2023 in response to the findings of the appeals panel in relation to one of the grounds of appeal brought by Ryanair.
- 3.15 Subsequent to the publication of the determination in October 2019, in early 2020, it became clear that the COVID-19 pandemic would have a substantial impact on the assumptions and forecasts underpinning the determination. Thus, it was necessary to carry out an Interim Review of the determination.

### *First Interim Review*

- 3.16 A decision on the first interim review was published in December 2020. The main aim was to implement solutions to avoid or resolve any unintended consequences that had arisen from the large reductions in traffic. All triggers and adjustments to the price cap were removed for these years, including the operating cost passthrough mechanism and downward price cap adjustments associated with the Capex reprofiling triggers. The review further stipulated that there would be no clawback of capital costs associated with unspent Capex in 2020 or 2021. This RAB adjustment will benefit Dublin Airport over the period 2023-2026, rather than 2020-2022.
- 3.17 The downside risk which had materialised was exceptional and unprecedented. We concluded, where proportionate, that this warranted a degree of regulatory relief for Dublin Airport. We also had regard to our obligations to protect the interests of airport users who were themselves suffering from a severe downside shock.
- 3.18 For 2020, the Interim Review replaced the per passenger price cap with a set of individual caps that reflected Dublin Airport's menu of charges applicable during 2020. This had the effect of waiving the ex-ante price cap compliance requirement. The first Interim Review ultimately allowed an effective price cap of €9.94 per passenger for 2020, and €7.50 per passenger for 2021, in nominal prices.

### *Second Interim Review*

- 3.19 In 2021, we carried out a second Interim Review which broadly carried forward this approach into 2022. In our decision on the second review, we also committed to carrying out this full review in 2022.
- 3.20 Combined with the impact of the review already undertaken in relation to 2020 and 2021, we previously forecast that the value of our regulatory interventions for Dublin

Airport over 2020-2022 would be in the region of €200m to €220m over the period 2020-2026. Given that passenger numbers in 2022 appear likely to now be higher than expected when we estimated that range, the value to Dublin Airport is likely to now be higher, given that the 2022 price cap will be recovered from a higher volume of passengers.

## 4. Substantial Grounds, Scope and Objective

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- 4.1 Pursuant to Section 32(14) of the Aviation Regulation Act 2001, as amended by the State Airports Act, 2004, the Commission may carry out an interim review of the prevailing determination if it considers that there are substantial grounds for doing so.<sup>5</sup> If it sees fit, it may amend the determination.
- 4.2 The Commission has previously used the following test to establish whether substantial grounds exist for conducting an interim review:<sup>6</sup>
- Are the circumstances exceptional?
  - Are the circumstances generally outside the control of the regulated company?
  - Are the effects of those circumstances liable to be significant enough to compromise the objectives of the original decision without a review (taking into account the incentive and any other detriments that would in general also arise from a review)?
- 4.3 Establishing substantial grounds should be done in a manner consistent with the Statutory Objectives of the Commission, as should any decision to amend the prevailing determination.
- 4.4 The Commission considers that the profound impact of the COVID-19 pandemic on the assumptions and business plans underpinning the 2019 Determination building blocks clearly constitutes substantial grounds to carry out a full review the 2019 Determination. The circumstances arising from the COVID-19 pandemic are exceptional by any reasonable metric, and outside the control of Dublin Airport.
- 4.5 The original regulatory settlements are no longer fit-for-purpose in a number of respects, and, if not adjusted, are now likely to run contrary to our statutory objectives, thereby compromising the objectives of the original decision.

### *Scope and Objective*

- 4.6 The scope of this review is a full reassessment of each of the building blocks, leading to revised price caps for 2023 and 2024. As set out in Section 6, we propose to extend the period of the 2019 Determination to also cover 2025 and 2026. This will provide to stakeholders a short- and medium-term view on Airport Charges, over a time horizon close to that of a standard full determination.
- 4.7 The objective is to update each building block, to take account of the significant changes which have occurred since 2019. In doing so, we propose to base our decisions on the revised objectives as set out in the ANTB.
- 4.8 Specific details on each building block are set out in subsequent sections of this paper.

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<sup>5</sup> This section was amended by the State Airports Act 2004, removing the 2-year time limit and now an interim review can be conducted at any time.

<sup>6</sup> [https://www.aviationreg.ie/fileupload/Image/PR\\_AC2\\_PUB8\\_CP6\\_2006.pdf](https://www.aviationreg.ie/fileupload/Image/PR_AC2_PUB8_CP6_2006.pdf)

## 5. Statutory Objectives and Policy

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- 5.1 This section sets out the statutory requirements, previous Ministerial Directions, and Government Policy which we will need to take account of. It also outlines stakeholder comments on policy and statutory requirements.
- 5.2 As set out in the Issues Paper, we expect our objectives to change in 2022, with the enactment of the Air Navigation and Transport Bill, 2020 (ANTB).<sup>7</sup> The ANTB provides for the merger of the aviation regulatory functions of the Irish Aviation Authority (IAA) with the aviation regulatory functions of the Commission for Aviation Regulation, into a new IAA as a single consolidated aviation regulator. There are also a number of amendments related to the economic regulation of Airport Charges. The amendment to Section 32 of the Aviation Regulation Act, 2001 is particularly important for this review, as it will allow us to extend the regulatory period of a determination by up to 2 years when conducting a review of a previous determination. We intend to make use of this to extend the current period to include 2025 and 2026.
- 5.3 The ANTB lays out new objectives for us when making a determination on the maximum level of Airport Charges. While this Interim Review is an amendment to an existing determination, rather than making a determination, it is still a full building blocks review of the 2019 Determination and so we have regard to the revised objectives in arriving at our positions for the Draft Decision, and will also do so for the Final Decision.
- 5.4 The progression of the ANTB has been slower than expected. We still anticipate that it will be enacted in time for the Final Decision later this year, however there is a risk that this may not be the case. It would mean that the current regulatory period could not be extended by 2 years as planned, until such time as the ANTB is enacted. We are considering the following options in that scenario:
- 1) Conclude the review later this year in relation to the 2023 and 2024 regulatory settlement only, while also publishing our intended decisions in relation to 2025-2026. Then carry out another Interim Review as soon as practicable after the ANTB is enacted. This Interim Review would be limited in scope, in that it would give legal effect to the planned regulatory settlements for 2025-2026 already published alongside the revised Determination for 2023-2024.
  - 2) Conclude the review later this year in relation to the 2023 (and potentially 2024) regulatory settlement only, while also setting out intended regulatory settlements for 2025-2026. Then carry out an Interim Review as soon as practicable which would extend the period by 2 years but also broaden the scope to potentially allow for a refresh of inputs and/or further substantive submissions from stakeholders for all remaining years.
  - 3) Conclude the review for 2023-2026 in 2023, as soon as practicable after the passage of the ANTB. In 2020, we made adjustments to the 2019 Determination through an Interim Review of the regulatory settlement for 2020 itself. This point was appealed but not referred back to the Commission by the Appeals Panel.

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<sup>7</sup> [https://data.oireachtas.ie/ie/oireachtas/bill/2020/72/eng/ver\\_a/b72a20d.pdf](https://data.oireachtas.ie/ie/oireachtas/bill/2020/72/eng/ver_a/b72a20d.pdf)



However, this approach could lead to a requirement to adjust Airport Charges within the year or even within the Summer 2023 season. To mitigate this, we could potentially provide a non-statutory guidance note to stakeholders in relation to the likely price cap outcome for 2023, to enable them to plan and set Airport Charges accordingly.

- 4) Conclude the review for 2023-2024, and in 2024 make a new determination to cover a 4+ year period commencing in 2025.
- 5.5 We welcome views from stakeholders on how we should proceed should these circumstances materialise.

## Statutory Requirements

- 5.6 Section 33 of the Aviation Regulation Act, 2001, as amended by Section 22 (4) of the State Airports Act, 2004, sets out our Statutory Objectives and factors to which we must pay due regard. These are set to be updated by Section 96 (a & b) of the Air Navigation and Transport Bill, 2020 (ANTB) following its enactment.
- 5.7 This section sets out our interpretation of the objectives and factors as described in the ANTB. Our Statutory Objectives now require the regulation of Airport Charges at Dublin Airport with primary reference to the reasonable interests of current and prospective users of Dublin Airport.

## Statutory Objectives

- 5.8 *"In making a determination, the principal objectives of the Commission shall be to protect and promote the reasonable interests of current and prospective users of Dublin Airport and the Commission shall seek to—*
- 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."*

## Protecting and promoting the reasonable interests of current and prospective users

- 5.9 The primary goal of protecting the interests of users is best served by making a pricing decision which seeks to promote economic efficiency by Dublin Airport. This involves promoting the provision of services which match the quality expected by passengers, at efficient cost. This further allows airlines to offer passengers enhanced value and choice. The various components of the regulatory model, as described in this document, are essentially designed to achieve this outcome.
- 5.10 We have engaged with current users throughout this process, both airlines and

passenger representatives, to ensure we understand their requirements. We will address the needs of future users by enabling the provision of sufficient future infrastructure, and by ensuring that future users are not now being committed to inefficient costs in the future.

- 5.11 We propose to protect the interest of current and prospective users by setting a price cap that remunerates the estimated efficient Operating and Capital costs for Dublin Airport to provide the services that users require at the quality desired. We do not intend to allow Airport Charges to exceed this level, as this would harm the interests of airport users by reducing the value being provided by the airport.
- 5.12 It is no longer a primary Statutory Objective for us to enable daa to operate Dublin Airport in financially viable manner. However, we will continue to consider the question of financeability, as it is implicit in promoting the reasonable interests of current and prospective users. For example, it would not be in the interests of users or in furtherance of any of our other objectives if we were to include remuneration for projects which are unlikely to be delivered in practice because Dublin Airport would be unable to finance them in the regulatory period. The financeability of the regulatory settlement does not conflict with the interests of airport users, but rather, these goals are complementary.

#### Promote safety and security at Dublin Airport

- 5.13 We propose to meet this objective primarily by facilitating Dublin Airport in efficiently incurring safety and security related costs. Examples of this include Capex projects which we propose to remunerate, such as the introduction of Explosive Detection Systems for Cabin Baggage Standard 3 (EDSCB C3) and Hold Baggage Screening Standard 3 (HBS3). We also include Operating Expenditure for the security business unit, including costs associated with enhancements to this unit, and the airport fire and police services. From the perspective of aerodrome safety, we include taxiway projects such as Dual Taxiway F and Taxiway R, which will enhance safety by allowing unrestricted north/south taxiing of Code E aircraft. Where a project is demonstrated to be required for compliance purposes, we include efficient costs associated with it.
- 5.14 Promoting safety and security, particularly by including required costs associated with compliance in the forecasts which underpin the price caps, is also implicitly in the interests of airport users.

#### Facilitate the efficient and economic development and operation of Dublin Airport

- 5.15 We propose to meet this statutory objective primarily by setting a price cap for Dublin Airport which remunerates the airport for forecast efficient Operating and Capital Costs, as described in Sections 8, 10, and 11.

#### Promote high-quality and cost-effective airport services at Dublin Airport

- 5.16 We propose to set comprehensive Quality-of-Service standards to promote the provision of high-quality airport services, while also providing for the recovery of efficient costs of providing the airport services. In our cost forecasts, we are seeking to balance challenge with achievability, thereby promoting cost-effective airport

services.

- 5.17 For example, we will continue to set targets for security queue wait times, while having regard to the duty of Dublin Airport to carry out a security inspection in line with regulatory requirements. Also, we will continue to set targets in relation to the assistance of passengers with disabilities or reduced mobility.
- 5.18 These standards have been arrived at in consultation with the Passenger Advisory Group (PAG) and other stakeholders. We originally established this group in 2018 to improve our understanding of what is important for passengers at Dublin Airport. The standards applied in 2019 were derived in response to discussions with the PAG. As set out in Section 13, we propose to reintroduce the comprehensive suite of quality metrics from 2023, following the temporary COVID-19 related suspension in 2020 and 2021, and partial reintroduction in 2022.

#### Take account of the policies of the Government on aviation, climate change and sustainable development.

- 5.19 We have taken into account relevant policies and considered how the various business and investment planning elements of the Interim Review might strike an appropriate balance between these policies. The policies of relevance are outlined below.

#### *Statutory Factors*

- 5.20 In setting the maximum level of airport charges, we must have due regard to the following statutory factors. Most of these are not amended by the ANTB.

#### The restructuring including the modified functions of daa

- 5.21 Since the original 2019 Determination, we are not aware of any such change in the structure or functions of daa which is relevant for the purpose of fulfilling our statutory function to set the maximum levels of Airport Charges.

#### The level of investment in airport facilities at Dublin Airport, in line with safety requirements and commercial operations in order to meet the needs of current and prospective users of Dublin Airport

- 5.22 We seek to allow an efficient level of capital investment to meet the needs of current and prospective users, having regard to safety requirements, service level requirements, passenger traffic demand forecasts, and the commercial operations of the airport. Dublin Airport's Capital Investment Plan (CIP) has been formulated through consultation with airlines.
- 5.23 As in 2019, the CIP proposed by Dublin Airport is intended to enhance the capacity of the airport such that it could process 40 million passengers per annum (mppa) at an appropriate level of service quality. Our assessment of the CIP was informed by the views of current users and our assessment of what future users would require. This was based on evidence provided by stakeholders, and also the airfield and terminal simulation modelling which we commissioned in 2019, which showed that Dublin Airport's investment programme would generally allow for the forecast 40mppa flight

schedule to be facilitated at an appropriate level of service.

- 5.24 Allowed investment projects, and the driver(s) of the proposed decision in relation to them, are set out in Appendix 2.

The level of operational income of daa from Dublin Airport, and the level of income of daa from any arrangements entered into by it for the purposes of the restructuring under the State Airports Act 2004.

- 5.25 In this context, operational income refers to Airport Charges and Commercial Revenues associated with the operation of Dublin Airport.

- 5.26 We are not aware of any income arising from arrangements daa has entered into for the purposes of restructuring under the 2004 State Airports Act which is of relevance for this review.

- 5.27 When setting the price cap, we continue to favour a RAB based building blocks approach with a single till. For this reason, we will continue to include Commercial Revenues and associated costs in our price cap calculations, such that Dublin Airport will be able to recover sufficient income from Airport Charges to meet efficiently incurred costs.

#### Costs or Liabilities for which daa is responsible

- 5.28 As set out below in sections 8, 10, and 11, we will have regard to the Capital and Operating costs and liabilities of Dublin Airport.

Policy statement, published or on behalf of the Government or Minister of the Government and notified to the Commission by the Minister, in relation to the economic and social development of the State

- 5.29 We set out below how we propose to have due regard to policy notified to us by the Minister.

#### The cost competitiveness of airport services at Dublin Airport

- 5.30 We read this factor in light of our Statutory Objective to protect and promote the reasonable interests of current and prospective users of Dublin Airport. We seek to set the price cap based on the costs that an efficient operator at Dublin Airport would need to incur. An efficient price cap and high-quality airport infrastructure will be to the benefit of current and prospective users of Dublin Airport. We promote cost competitive airport services by setting the price cap at a level required to deliver services and infrastructure to a standard which is in the interests of current and future users, but no higher than that.

#### Imposing minimum restrictions on daa consistent with the functions of the Commission

- 5.31 We propose to continue to afford Dublin Airport large discretion in how it manages and runs the airport. Subject to complying with the price cap, Dublin Airport will continue to have discretion on its charging strategy (subject to the requirements of the

Airport Charges Directive), and its actual expenditure. As set out in Section 11, Dublin Airport is afforded flexibility on Capex to the extent that we consider proportionate, having regard to our other objectives, in particular protecting the interests of airport users. We do not propose to set any pricing sub-caps as we believe that doing so would not, at this time, be consistent with imposing the minimum required restrictions on daa consistent with the functions of the Commission.

#### Such national and international obligations as are relevant to the functions of the Commission and daa.

- 5.32 Our decision will be consistent with Directive 2009/12/EC on Airport Charges. We are the Independent Supervisory Authority (ISA) for the purposes of the Airport Charges Directive.<sup>8</sup> The Directive does not change our role in determining the price cap within which Dublin Airport can set individual Airport Charges through the annual consultation process. The material we publish ensures transparency over the methodology used for setting the maximum level of Airport Charges. Where relevant, we also have regard to the recommendations of the Thessaloniki Forum of airport charges regulators of European Union Member States. This forum, which we are a member of, produces policy papers aimed at better implementation of the Directive and the promotion of best practices in the economic regulation of airports.
- 5.33 Under national law, we have regard to the safety and compliance obligations of Dublin Airport. We have also had regard to the security, immigration and health and safety requirements to which airports are subject, as well as relevant national policy.

#### The need to encourage competition at Dublin Airport to—

- (i) improve capacity,
- (ii) provide choice on routes,
- (iii) provide choice between airlines, and
- (iv) improve international connectivity.

- 5.34 This is a new Statutory Factor which has been introduced by the ANTB.
- 5.35 We have allowed capital projects which, upon completion, would increase the capacity of the airport to meet foreseeable demand, encouraging and facilitating new entrants and thus facilitating competition and connectivity in the airline market and the ground handling market. In turn, this benefits current and future users by providing for increased choice and value in airport and aviation services. Competition and connectivity at Dublin Airport will also be encouraged through efficient Airport Charges which are sufficient to enable the delivery of required capacity and the provision of an appropriate level of service quality, but not higher than that.

### Ministerial Directions

- 5.36 As set out above, we must have due regard to National Policy notified to us by the Minister for Transport. We have not received a Ministerial Policy Direction relating to

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<sup>8</sup> Regulation of the European Communities (Dublin Airport Charges) Regulations 2011, S.I. 116 of 2011

the 2019 Determination.

- 5.37 In previous determinations on Airport Charges, we set out how the determination complied with Ministerial Policy Directions issued under Section 10 of the Aviation Regulation Act, 2001. Set out below is how we propose to continue to comply with those policy directions to the extent that is possible while also complying with our statutory objectives.

#### *The 16 August 2001 Ministerial Direction*

- 5.38 Having regard to the contents of the 2001 Direction we concluded that, for Dublin Airport, this meant providing it with sufficient resources to provide for its continued infrastructure development. We stated that providing for continued infrastructure development at Dublin Airport was best met by providing Dublin Airport with a separate price cap (at that time the Commission also set limits on the maximum levels of Airport Charges at Cork and Shannon airports).
- 5.39 We propose regulatory settlements which provide for continued infrastructure development at Dublin Airport and will thus continue to comply with that 2001 Direction.

#### *The 18 August 2005 Ministerial Direction*

- 5.40 In analysing that 2005 Direction we concluded that its clear direction was to make a determination that enabled Dublin Airport to add additional capacity in an efficient and timely manner. We further considered the implications for sustainability and financial viability of the capital expenditure programme for Dublin Airport and satisfied ourselves that daa would be able to finance the programme.
- 5.41 We are satisfied that we continue to comply with the 2005 Direction and that the Interim Review will enable Dublin Airport to add required capacity in an efficient and timely manner. Our new principal Statutory Objective will be to protect and promote the reasonable interests of current and prospective users of Dublin Airport; a sustainable and financially viable capital expenditure program will be important for promoting the interests of airport users.

#### *The 3 April 2007 Ministerial Direction*

- 5.42 In complying with the 2007 Direction, we made a determination that provided for infrastructure capacity increases in line with growth in air services at Dublin Airport, as sought by the National Development Plan 2007-2013. We also comprehensively reconsidered the sustainability and financial viability implications of the capital expenditure programme, and in particular the impact of providing a second terminal. The Determination also considered the implications of the restructuring of the State Airports.
- 5.43 In this Interim Review, we continue to provide for infrastructure developments in line with requirements at Dublin Airport and also consider the sustainability and financial viability implications of Dublin Airport's capital expenditure programme.

### *The 27 October 2009 Ministerial Direction*

- 5.44 In complying with the 2009 Direction, we believed that it was crucial that the airport would offer users a suitable quality of service at a cost-effective price such that it will encourage and incentivise greater air access, greater investment and thereby contribute to the broader economic development of the State. Therefore, the 2009 Determination included a Quality-of-Service system for the first time. It provided a price cap sufficient to enable Dublin Airport, provided it was efficient, to fund what we considered to be an appropriate level of investment to provide users with a suitable Quality-of-Service into the future and to cover the operating costs necessary to provide such a Quality-of-Service today. We were also mindful that general economic development would be hindered if access to Dublin Airport was restricted because of capacity constraints. The 2009 Determination addressed this, most specifically through its treatment of possible costs associated with adding new runway and terminal capacity, items that were separately identified in the 2009 Direction.
- 5.45 We will continue to comply with that Direction by the manner in which we set out an appropriate Quality-of-Service system, and setting out revised regulatory settlements which are sufficient to facilitate the efficient and economic development of Dublin Airport and to enable Dublin Airport to fund an appropriate level of investment to provide users with a suitable Quality-of-Service into the future and to cover the operating costs necessary to provide such a Quality-of-Service today. These actions serve to protect and promote the reasonable interests of current and prospective users of Dublin Airport.
- 5.46 Part of the 2009 Direction set out that it is Government policy for daa operate on a commercial basis without recourse to exchequer funding or an equity injection by the State. In that context, it noted the need to secure lender confidence and raise debt financing on a cost-efficient basis. We will continue to assess the practical financeability of our proposed regulatory settlements and thus are mindful of the need for Dublin Airport to secure lender confidence and raise debt finance on a cost-efficient basis. This is discussed in Section 12.

### *The 15 September 2014 Ministerial Direction*

- 5.47 The Minister sought to clarify policy as regards the financially sustainable development of Dublin Airport. In that regard, he directed us to “ensure that the Dublin Airport Authority’s financial viability is protected in order to implement Government policy on:
- The role of Dublin Airport as an international gateway for Ireland, including as a secondary hub for air traffic flows between Europe/Asia and the US, and its strategic role in relation to air access for the tourism sector, inward investment and general economic development;
  - The desirability that Dublin Airport should have the terminal and runway facilities to promote direct international air links to key world markets, including the new high growth emerging economies, and the importance of maximising the use of that infrastructure and planning for the future in that context;
  - The sustainable operation of Dublin Airport on a commercial basis without

recourse to Exchequer funding or an equity injection by the State and in that context, the need to secure lender confidence and raise debt financing on a cost-efficient basis.”

- 5.48 In 2014 we stated that in making a Determination, one of our objectives is “...to enable daa to operate Dublin Airport in a sustainable and financially viable manner” (our emphasis). It is for Dublin Airport to ensure it operates and develops the airport in a sustainable and financially viable manner.
- 5.49 In 2014 we were satisfied that the Determination complied with the 2014 Direction by allowing Dublin Airport a price cap sufficient to enable daa, provided it was efficient, to fund a substantial investment programme that would allow it provide users with a suitable Quality of Services into the future while permitting it to cover operating costs necessary to provide current users with a suitable service. We take a similar approach in this review.

## Policy Directions

- 5.50 In July 2018, we were notified by the Department of Transport, Tourism and Sport to pay due regard to the 2017 Policy Statement on Airport Charges Regulation and the 2015 National Aviation Policy (NAP) for the 2019 Determination.

### *2017 Policy Statement on Airport Charges Regulation*

- 5.51 We will pay due regard to this policy statement when carrying out this Interim Review.<sup>9</sup> First, the Policy Statement proposed that we shall no longer be mandated to have specific regard to the financial viability of Dublin Airport in making a Determination. The Statement adds that this is intrinsic in the primary objective of protecting the interests of current and future users. As described above, that is now set to be our principal Statutory Objective under the ANTB.
- 5.52 Second, the Policy proposed an explicit reference to competition in the revised legislation, which is now a statutory factor, as discussed above.
- 5.53 Third, the Policy proposed that the Commission have regard to Government policy on climate change and sustainability. This is now a Statutory Objective under the ANTB, as previously discussed. Therefore, even before the ANTB is enacted, we must have regard to such policy.

### *2015 National Aviation Policy*

- 5.54 The key goals of the 2015 National Aviation Policy are as follows:
- enhance Ireland’s connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers.
  - foster the growth of aviation enterprise in Ireland to support job creation and position Ireland as a recognised global leader in aviation.
  - maximise the contribution of the aviation sector to Ireland’s economic growth

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<sup>9</sup> <https://assets.gov.ie/26680/9b68321ca33a4ed397f9b2094c7e6e33.pdf>



and development.

- 5.55 The policy also places significant emphasis on the development of hub infrastructure at Dublin Airport.
- 5.56 These goals are consistent with our proposed approach to the Interim Review. As set out above, our overall goal is to maximise the value which Dublin Airport provides to current and future airport users. This will maximise the contribution of Dublin Airport to the aviation sector, which will, in turn, maximise the contribution of the aviation sector to Ireland's economic growth and development. Where we consider that an element of the National Aviation Policy is of particular relevance to an aspect of the regulatory settlement, this is highlighted below.
- 5.57 The National Aviation Policy is particularly relevant to the capital investment allowances that support the development of Dublin Airport.<sup>10</sup> We propose to include nearly all of Dublin Airport's proposed capital investment programme into the regulatory asset base (provided the costs are efficient), including costs associated with the delivery of infrastructure to meet foreseeable demand and the development of Dublin Airport as a secondary hub.

### Relevant Policies following enactment of the ANTB

- 5.58 This section sets out our review of relevant government policies, as referenced in the updated statutory objectives in the ANTB. We have reviewed these policies as summarised below, in particular to identify aspects relevant for this review, and then set out how we propose to take account of them.

#### *The Climate Action Plan*

- 5.59 The Climate Action and Low Carbon Development (Amendment) Act 2021<sup>11</sup> commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and to achieve a cut of 51% by 2030 (compared to 2018 levels). Under the 2021 Act, Ireland's national climate objective requires the state to 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.
- 5.60 The New Economy and Recovery Authority (NewERA) has been tasked with developing a framework for the commercial Semi-State sector to address climate action objectives. Dublin Airport will be required to follow these commitments, as outlined in the Climate Action Plan 2021 paper.<sup>12</sup>
- 5.61 The Commission is enabling Dublin Airport to meet its Climate Action Plan targets by allowing for the Airport's proposed Sustainability Capex projects. This category includes a project to increase electric vehicle charging facilities, facilitating the electrification of Dublin Airport's fleet, and thereby reducing its reliance on fossil fuels. The category also includes a sustainability upgrade to Terminal 2 which will replace the fossil fuel heating system with a renewable energy alternative, thereby lowering the

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<sup>10</sup> <https://assets.gov.ie/14197/9b90e1b8a47d47c8950ead2492a54030.pdf>

<sup>11</sup> <https://data.oireachtas.ie/ie/oireachtas/act/2021/32/eng/enacted/a3221.pdf>

<sup>12</sup> <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>

airports carbon emissions.

### *2018 EU directive on renewable energy*

- 5.62 The Renewable Energy Directive, Directive (EU) 2018/2001, (REDII), transposed into Irish law through the European Union (Renewable Energy) Regulations 2020 (S.I. 365 of 2020)<sup>13</sup>, established a common framework for the promotion of energy from renewable sources in the EU. It set a binding target of 32% for the overall share of energy from renewable sources in the EU's gross final consumption of energy in 2030. It also established sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels and laid down rules on financial support to enhance the use of renewable energy usage. In January 2020, the European Green Deal was adopted by the European Parliament. This emphasised the need for more ambitious action to address climate change. The resolution called for the revision of the RED in line with the new climate ambitions by establishing new binding obligations for individual Member States. This directive is in the process of being updated.
- 5.63 As part of the update Delivering on the European Green Deal<sup>14</sup> (the Fit for 55 package), the European Commission is seeking to accelerate the take-up of renewables in the EU to make a decisive contribution to its ambition of reducing net greenhouse gas emissions by at least 55% by 2030 – and ultimately becoming climate neutral by 2050. These proposals are seeking to increase the current EU-level target of renewable energy sources in the overall energy mix from at least 32% to at least 40% by 2030.
- 5.64 In this context, we propose to allow for investment in sustainability related projects, as set out in Section 11 and Appendix 2. This includes projects such as the photovoltaic solar farm phase 2, an anaerobic digester, low-emissions fleet vehicles, and the enhancement of the energy efficiency of airport buildings.

### *Alternative Fuels Directive (AFIR), and ReFuel*

- 5.65 The AFIR concerns the creation of a new Regulation for the deployment of alternative fuels infrastructure.<sup>15</sup> The new Regulation will repeal Directive 2014/94/EU of the European Parliament and of the Council on the deployment of alternative fuels infrastructure.
- 5.66 It will be complementary to the ReFuelEU aviation initiative and is supportive of the expansion of fixed electrical ground power (FEGP). We propose to enable Dublin Airport to meet this objective by allowing for the rollout of Fixed Electrical Ground Power (FEGP) units. These provisions are that airport managing bodies of all Trans-European Transport Network (TEN-T) core and comprehensive network airports will ensure the provision of electricity supply to stationary aircraft by: (a) 1 January 2025, at all gates used for commercial air transport operations; (b) 1 January 2030, at all outfield posts used for commercial air transport operations. Furthermore, as of 1 January 2030 at the latest, Member States are required to take the necessary measures to ensure that the electricity comes from the electricity grid or is generated

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<sup>13</sup> <https://www.irishstatutebook.ie/eli/2020/si/365/made/en/print>

<sup>14</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en)

<sup>15</sup> [https://ec.europa.eu/info/sites/default/files/revision\\_of\\_the\\_directive\\_on\\_deployment\\_of\\_the\\_alternative\\_fuels\\_infrastructure\\_with\\_annex\\_0.pdf](https://ec.europa.eu/info/sites/default/files/revision_of_the_directive_on_deployment_of_the_alternative_fuels_infrastructure_with_annex_0.pdf)

on site as renewable energy.

- 5.67 The Refuel Aviation initiative is part of the Fit for 55 package and will set obligations on the supply of, or demand for, renewable and low carbon transport fuels, including that starting in 2025, the aviation fuel made available to EU airports should contain 2% Sustainable Aviation Fuel (SAF), increasing to 5% by 2030, 32% by 2040 and 63% by 2050.
- 5.68 In this context, we propose to allow for the Alternative Fuels project. This project is intended to create a transition and development plan for infrastructure to provide for SAF at Dublin Airport and will research the enablement of alternative aviation fuels such as Hydrogen at the airport.

### *Renewable Fuels for Transport*

- 5.69 This policy seeks to support Ireland's commitment to reduce greenhouse gas emissions in the transport sector and contribute to meeting Ireland's 2030 emission reduction target of 51%<sup>16</sup>. It encourages the introduction of renewable fuels in aviation once they are suitably developed and available, subject to enabling legislation. However, EU wide targets are now higher than 51%, so the encouragement of renewable fuels in aviation is still relevant but the targets have been superseded.

### *Clean Vehicles Directive*

- 5.70 The Clean Vehicles Directive<sup>17</sup> obliges EU Member States to ensure that, as of August 2021 all public contracting authorities who are procuring road transport vehicles consider the operational lifetime energy and certain environmental impacts, including energy consumption, emissions of CO<sup>2</sup>, and emissions of nitrous oxide (NO<sub>x</sub>), non-methane hydrocarbons (NMHC) and Particulate Matter.
- 5.71 We propose to enable the airport to meet its clean vehicles objectives by allowing for the Sustainable Fleet project. This project aims to introduce new LEV sustainable light and heavy fleet vehicles.

### *National Development Plan*

- 5.72 The National Development Plan (NDP)<sup>18</sup> includes plans to prioritize surface connectivity to ports and airports, with a particular focus on rail freight connectivity to the Ports of National Significance and improved sustainable mobility connections to the State Airports.
- 5.73 The plan is supportive of significant investment in Ireland's airports and ports, which it states will play a major role in safeguarding and enhancing Ireland's international connectivity which is fundamental to Ireland's international competitiveness, trading performance in both goods and services and enhancing its attractiveness to foreign direct investment. We understand 'significant investment' to refer to the investment required to facilitate connectivity. This aligns with our statutory objectives to promote

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<sup>16</sup> <https://www.gov.ie/en/policy-information/168c6-renewable-fuels-for-transport-policy-statement/>

<sup>17</sup> <https://eur-lex.europa.eu/eli/dir/2019/1161/oj>

<sup>18</sup> <https://www.gov.ie/en/publication/774e2-national-development-plan-2021-2030/>

safety and security at Dublin Airport, and to facilitate the efficient and economic development and operation of the Airport. The NDP also states that investment will facilitate the improvement and development of Ireland's ports and airports and will help the country recover from the impacts of COVID-19.

- 5.74 Under the plan, airports will be encouraged to develop measures to enhance sustainability and to meet regulatory requirements, including targets for cleaner infrastructure. Airports will be encouraged to move away from using fossil fuels, where possible, including a move from diesel to electric Ground Power Units (GPUs) in line with any new requirement under a revised Alternative Fuels Directive. As discussed above, we have allowed for capital projects which will enable Dublin Airport to meet these objectives.

### *National Strategy for Women and Girls*

- 5.75 This policy is cited by the sustainable development goals.<sup>19</sup> It proposes that public bodies should assess the human rights of women and girls and any gender equality issues when complying with the public sector duty under section 42 of the Irish Human Rights and Equality Act 2014 which requires public bodies to have due regard to equality and human rights.
- 5.76 One key outcome of this policy is for gender equality to be formally addressed by public bodies, in their implementation of the public sector duty to eliminate discrimination, promote equality of opportunity and treatment, and protect human rights. The related action for this outcome is for all public bodies to assess and identify the human rights of women and girls and the gender equality issues that are relevant to their functions and address these in their strategic planning, policies and practices, and annual reports, in line with the public sector duty under section 42 of the Irish Human Rights and Equality Commission Act 2014.
- 5.77 A second key outcome is to achieve a public service that demonstrably values diversity, is inclusive and representative of the wider population, and promotes equality of opportunity and protects the human rights of its employees. The related action is for public sector bodies (bearing in mind the existing public sector duty to eliminate discrimination) to promote equality and protect human rights, to take measures to review gender equality outcomes in recruitment and promotion in the public service, and to identify barriers to equality and evaluate and prioritise actions which could address those barriers.
- 5.78 We assess that such goals are primarily for Dublin Airport in its role as the airport operator and employer, rather than coming within the scope of making or amending a determination on the maximum level of Airport Charges. However, we do not see any aspect of the Draft Decision which would be inconsistent with these goals.

### *Towards Responsible Business: Ireland's Second National Plan on Corporate Social*

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<sup>19</sup> [https://www.justice.ie/en/JELR/National\\_Strategy\\_for\\_Women\\_and\\_Girls\\_2017\\_-\\_2020.pdf/Files/National\\_Strategy\\_for\\_Women\\_and\\_Girls\\_2017\\_-\\_2020.pdf](https://www.justice.ie/en/JELR/National_Strategy_for_Women_and_Girls_2017_-_2020.pdf/Files/National_Strategy_for_Women_and_Girls_2017_-_2020.pdf)

### *Responsibility (CSR) 2017-2020*

- 5.79 This policy is cited by the sustainable development goals.<sup>20</sup> It is designed to encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle. A relevant action for Dublin Airport would be to increase the recognition of the impact of business operations on the environment and to encourage businesses to mitigate their negative impacts. This would involve supporting and promoting environmental policy and encouraging businesses it deals with to strive for resource efficiencies.
- 5.80 In this context, as set out above, we propose to include allowances for various sustainability projects intended to enable Dublin Airport to mitigate its impact on the environment.

### **Issues Paper Responses on Policy and Statutory Objectives**

- 5.81 Aer Lingus acknowledges that our objectives are likely to change with the passage of new legislation and welcomes the focus on sustainability. It is supportive of action by the Commission to facilitate the delivery of the Government's target of a 51% reduction in emissions over the next 8 years.
- 5.82 However, it would like the Commission to provide greater clarity on how it intends to meet its new Statutory Objectives, with specific reference to ensuring that Dublin Airport's proposed investment in environmental measures is targeted, efficient, proportionate, and timely. It also argues that if Dublin Airport chooses to go beyond the required 51% reduction, the associated costs should not be funded by airlines through increased Airport Charges. Aer Lingus recommends that the Commission examine OFCOM's Statement of Strategic Priorities as well as other forms of governmental guidance on a regulator's duties.
- 5.83 Liam O'Grádaigh believes that the Commission should take account of Government policy on climate change and sustainable development. He also argues that the Aviation Regulation Act 2001 states in section 33(d) that the decision should have due regard for 'the contribution of the airport to the region in which it is located' and asks what consideration the Commission has made for the local communities that live in the region.
- 5.84 Dublin Airport asserts that the review must show due consideration for the revised objectives identified in the ANTB. It therefore welcomes the Commission's acknowledgement in the Issues Paper of its new sustainability objectives. It also welcomes and agrees with the Commission's assertion that a financeable and financially viable regulatory settlement is implicit in protecting passengers, and achieving other relevant statutory requirements. It argues that failure on the part of the Commission to 'insulate' Dublin Airport from such risks would jeopardize the sustainability of Dublin airport's operations for both the airport and airport users.
- 5.85 Ryanair does not agree with our position set out in the Issues Paper that continuing with the original unamended 2019 Determination would run contrary to our current

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<sup>20</sup> <https://enterprise.gov.ie/en/Publications/Publication-files/Towards-Responsible-Business-Ireland%E2%80%99s-National-Plan-CSR-2017-2020.pdf>

or new Statutory Objectives. It argues that in future decisions by the Commission, a rebalancing is needed in favour of user interests, as it argues that the Commission's principal objective is to protect and promote the interests of users, and that the three previous objectives have been relegated to second order objectives and should therefore not be delivered at the expense of the principal objective.

- 5.86 Furthermore, should the Commission's decision be taken under its existing Statutory Objectives, it believes that the proposed approach in the Issues Paper would be inconsistent with such a rebalancing of its Statutory Objectives. It argues that the Commission's proposals are inconsistent with normal regulatory practice, whereby the demand side risks are held by the shareholders of an entity, while our approach would constitute a transfer of risks to users.
- 5.87 Ryanair asserts that the Commission needs to accept that its approach to regulation must change with the passing of the ANTB, because the ANTB explicitly requires the primacy of user interests over other objectives. It also argues that the Commission should not infer that deleted objectives remain implicit in its decision making, and that the removal of the objective to ensure the financial viability of Dublin Airport is clear and should not take primacy over the interests of users, which it argues are clearly focused on lower costs.
- 5.88 Ryanair believes that the requirement to take account of aviation policy and to have due regard to the encouragement of competition and improved connectivity would be best achieved by ensuring that charges are set at a level that makes it attractive for airlines to increase services.
- 5.89 It also notes that the development of capacity should not be considered an objective on its own, but as secondary to the principal objective of promoting users' interests. It argues that greater weight should be applied to ensuring efficiency rather than development, particularly where this involves the provision of new capacity ahead of when it is needed.

## *Response*

- 5.90 In response to Aer Lingus, we agree that Dublin Airport's proposed investment in environmental projects should be targeted, efficient, proportionate, and timely. As set out in Appendix 2, and in the IFS report, we are seeking to balance our objectives by making allowances for these projects while also assessing the efficiency of the initial cost proposals, and the merit of the outputs which the projects are intended to provide. However, it is unlikely that full clarity on these points will be available this year, as many of these projects are still in the early stages of development. For that reason, most of these projects will go through the StageGate process. Thus, as project costings and outputs crystallise when the projects move from StageGate 0 to StageGate 1, these will be subject to ongoing consultation, and oversight of the IFS.
- 5.91 We agree with Liam O'Grádaigh that we should take account of Government policy on climate change and sustainable development. This is an obligation which the ANTB now places on us. We have set out how we propose to do so above. It should however be noted that the 'contribution of the airport to the region in which it is located' has not been a due regard factor since 2004, at which point the original version of the 2001

Act was amended by the State Airports Act, 2004.

- 5.92 In relation to local communities, as set out in Appendix 2 and also in the IFS report, we propose to make allowances for projects intended to reduce noise, water, and air pollution generated by Dublin Airport. These projects are linked to relevant regulatory, legislative, and/or planning requirements. The cost allowance for the North Runway also includes the cost of sound insulation schemes for local properties as per the planning conditions for that project. We also note that the continued efficient development and operation of the airport will enhance the economic benefits which the airport generates in the area.
- 5.93 In response to Ryanair's views on our Statutory Objectives, we note that it is necessary to read the Statutory Objectives together and in connection with each other when making decisions. We agree with Ryanair that, should there be a direct conflict between the interests of current and future users and one of the other objectives, the ANTB requires us to place more weight on the former. However, it is rare for such a direct conflict to materialise in practice, particularly given the breadth of priorities, interests and views held by the various airport users.
- 5.94 Should Ryanair or another respondent consider that any of the proposed decisions underpinning the draft regulatory settlements are not appropriately weighted, having regard to the prioritisation of our objectives, we will consider any such specific points ahead of the Final Decision.
- 5.95 Neglecting to assess financeability, as suggested by Ryanair, leaves open the possibility that we would include allowances for projects which cannot be delivered in practice because the level of Capex foreseen cannot be reliably financed in the time period assumed. This outcome would not be in the interests of users regardless of their priorities. It would always be preferable in such a scenario to adjust the regulatory settlement to either reduce Capex or otherwise enhance financeability such that the regulatory settlement is workable in practice. Thus, there is no benefit in not assessing financeability.
- 5.96 We also note that the 2017 Policy Statement on Airport Charges Regulation states that the Commission shall no longer be mandated to have specific regard to the financial viability of Dublin Airport in making a Determination as this is intrinsic in the primary objective of protecting the interests of current and future users. Thus, it is not just our view that the financial viability of Dublin Airport is implicit in the interests of current and future users, but this is explicitly stated in a policy which we must take into account.
- 5.97 The policy also identifies areas for reform within the regulatory model. However, the main areas identified for change relate to the appeals process, and Ministerial Directions, among others. The policy did not recommend wholesale change to the approach to the economic regulation of Airport Charges, instead identifying that the current system compares favourably with international practices.
- 5.98 We continue to consider that the thrust of our objectives when making decisions on Airport Charges is to promote economic efficiency in the development and operation of Dublin Airport, such that the value offered to airport users is maximised. Thus, the

primary goal of protecting the interests of users is best served by making a pricing decision which seeks to promote economic efficiency and achieve an optimal cost to quality trade-off in the provision of current and future airport services. This then facilitates airlines in increasing the value and choice they offer to passengers.

- 5.99 As set out in the Issues Paper, we consider that the main area where additional focus is now required due to the revised objectives in the ANTB relates to the promotion of sustainable development and climate change related policy. This must be balanced with our other objectives, including government policy on aviation. We set out above, and in the rest of this document, how we propose to do that.
- 5.100 In summary, our proposals aim to maximise the value which Dublin Airport will provide to current and future users, while also looking favourably on costs required to align with sustainability and climate change related policy. We recognise that there is a potential trade-off between our primary Statutory Objective, and our obligation to take account of policies which require significant reductions in carbon emissions. Given the primacy of our obligation to protect the interests of both current and prospective airport users, we propose to continue to include capacity enhancing projects to allow the airport to serve a foreseeable increase in passenger traffic, notwithstanding the potential for this to facilitate increased emissions (before the anticipated broader decarbonisation of the sector). However, we simultaneously seek to enable Dublin Airport to meet its own climate related targets.

### Issues Paper Responses on Progression of the ANTB

- 5.101 Dublin Airport argues that if the enactment of the Bill is delayed, the Commission should defer its final decision until the Bill is passed to account for (i) all of the relevant factors available to it in its decision-making process, and (ii) the proper legal basis for the decision being in place. It also argues that the Commission must adhere to a range of 'due regard' criteria when determining airport charges. Dublin Airport believes that the ANTB and the potential economic and social developments arising from it falls within this due-regard factor, and therefore ought to be considered by the Commission when making a decision. Finally, it argues that if the draft is developed based on the existing legislation, and then the bill is enacted, there may not be enough time to update the draft so that it aligns with the new legislation.
- 5.102 Dublin Airport argues that if the decision on the Interim Review is reached ahead of enactment of the ANTB, then the sustainability projects included within its submission should still be allowed under the existing legislation.

### Response

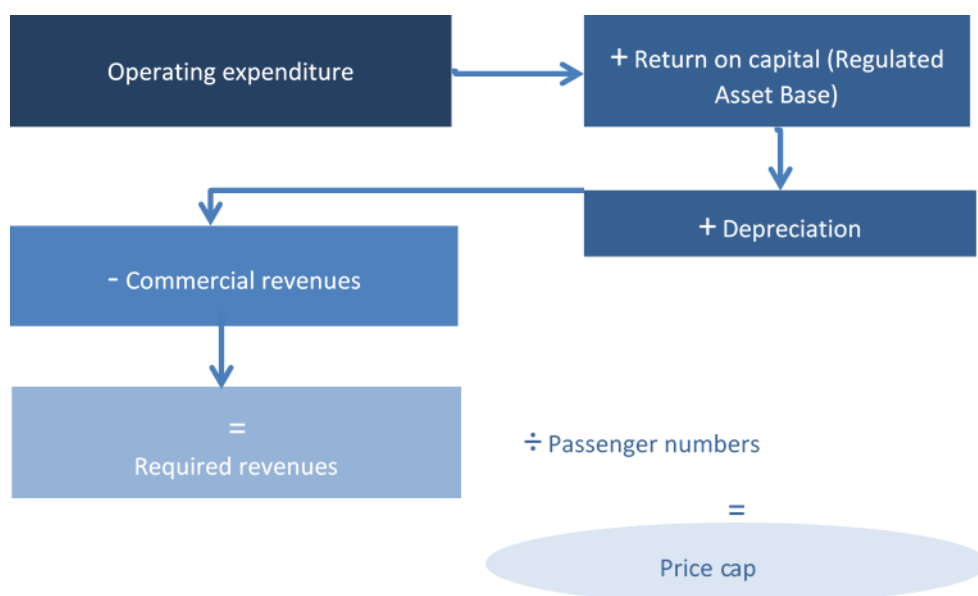
- 5.103 The question of how we should proceed in the event of further delay to the ANTB is discussed earlier in this section.
- 5.104 We have not reviewed the revised sustainability projects in the context of the existing legislation, given our intention to review Airport Charges in the context of the revised legislation. However, in 2019, the original determination similarly made allowances for projects such as phase 1 of the photovoltaic farm, fixed electrical ground power, and other projects to enhance energy efficiency.



## 6. Approach to Regulation

- 6.1 We propose a general approach to regulation which is in line with the original 2019 Determination and with previous determinations. We propose using the building blocks approach with a single till and having regard to the regulatory asset base (RAB), to amend the maximum charge per passenger for 2023 and 2024 and to set the maximum level of charges for 2025 and 2026. The details of our approach to each building block is laid out in the relevant section of this report.
- 6.2 This approach involves calculating targets for future Operating Expenditures, Commercial Revenues, Passenger numbers, and Capital Costs (which in turn requires an assessment of proposed capital projects). The single till approach means that we include Commercial Revenues generated from activities such as retail, car parking and Food & Beverage at the airport, and also costs associated with providing these non-aeronautical services.

Chart 6.1: The building blocks approach



- 6.3 We set quality standards to incentivise the airport to sustain and improve its performance in the areas that are important to airport users (passengers and airlines).
- 6.4 We then consider the question of financing and financial viability by checking that, when all the building blocks are taken together, Dublin Airport should be able to raise debt at an efficient cost to fund the development and operation of the airport, in the interests of current and future airport users.
- 6.5 We implement incentive-based regulation. Where Dublin Airport outperforms our targets, it keeps the gain and vice versa. For the most part, Dublin Airport holds the risk within the period, and it is transferred to users at the time of the subsequent determination. This creates incentives for Dublin Airport to act as a company in a competitive market would, in responding to circumstances as they unfold.
- 6.6 We note that in setting the price cap, we do not have specific regard for how charges

at Dublin Airport compare to other airports. It is challenging to draw such comparisons given the differing charging structures and scope of services provided at different airports. Furthermore, at certain airports, airlines do not pay the published charges, but rather have bilateral deals in place with the airport operator. Rather we look to arrive at a price per passenger that an efficient operator of Dublin Airport, subject to effective competition, would charge.

### *Allocation of Risk*

- 6.7 In this interim review, we propose to continue to assign to Dublin Airport the risks, both upside and downside, of outturns differing from our forecast targets for Passenger numbers, Opex allowances, Commercial Revenues and the Cost of Capital. We allocate these risks to Dublin Airport on the basis that it is the party best able to manage and/or control these risks.
- 6.8 We continue to allocate these risks in two ways. Firstly, the per passenger price cap allocates the volume risk to the airport and secondly, there are no ex-post adjustments when outturn operating costs, Commercial Revenues or Cost of Capital differ from the targets set. While the airport carries these risks, it does so only for a time limited period. The level of risk exposure is limited to the next re-set of the building blocks.
- 6.9 In the 2022 Issues paper, we proposed 4 options to ex-ante risk allocation. These were:
- Broadly retaining the current approach.
  - Introduce a Traffic Risk Sharing mechanism (TRS).
  - Introduce a General Risk Sharing mechanism (GRS).
  - Introduce a mechanism to facilitate Capex flexibility based on deviations from forecast traffic levels.

### *Responses on Risk Allocation*

- 6.10 Aer Lingus believes the introduction of a risk sharing mechanism to be an unnecessary response to forecasting uncertainty.
- 6.11 Dublin Airport supports retaining the current approach and suggests that we commit to reopening the determination in the event of variance from forecasts meeting a threshold.
- 6.12 Ryanair states that there should be no review of the 2019 Determination at this time, but that if such a review is to take place, it should be based on principles of competitive market pricing, rather than a building blocks approach.
- 6.13 Ryanair also state that the Commission's suggestion of a risk-sharing mechanism favours Dublin Airport at the cost of airport users and therefore rejects the use of any such mechanism.
- 6.14 IATA notes that given the recovering traffic levels, there is no need for a risk sharing mechanism to be instituted. Furthermore, IATA expresses concern about a loss

recovery adjustment. They believe making such allowances would shield Dublin Airport from the risks it was remunerated to bear.

- 6.15 Liam O’Grádaigh considers that we should claw back revenues from 2019 associated with passenger numbers in excess of 32 million.
- 6.16 In line with the general lack of support for high level changes to risk allocation from all stakeholders, the Commission has opted not to propose any such mechanism in this review.
- 6.17 In response to Liam O’Grádaigh, we note that the price cap in 2019 was set through the 2014 Determination. The 2014 Determination specified only the maximum level of Airport Charges which could be collected per total number of passengers. As Dublin Airport did not collect more aeronautical revenue than the allowed per-passenger yield, Dublin Airport complied with the 2014 Determination.

### *Dealing with Extreme Downsides*

- 6.18 The impact of the pandemic on aviation is unprecedented and was not in the range of downside scenarios under which the original 2019 Determination was intended to be robust, without requiring an interim review. We responded to this extreme downside by conducting a number of interim reviews (on completion of this review there will have been three in total).
- 6.19 To preserve the incentives in price cap regulation, interim reviews are used sparingly. However, the regulatory formulae generally, and the 2019 Determination specifically, are not equipped to deal with an extreme downside such the COVID-19 pandemic in a mechanistic manner. We do not propose to try to make changes to the formula to enable it to deal with such extreme downsides, and instead believe they are best dealt with, should they occur in the future, by way of interim review.

### *Length of the Period*

- 6.20 We intend to extend the length of the regulatory period such that this full review covers the 4-year period from 2023 to 2026. This is the maximum extension to a Determination that is provided for under the Air Navigation and Transport Bill, 2020. The extension of the regulatory period will provide short- and medium-term clarity over the price cap trajectory for stakeholders.
- 6.21 In setting the length of the regulatory period, there is a trade-off between providing medium term clarity over pricing (which also strengthens efficiency incentives) and forecasting uncertainty which tends to increase further into the future. Thus, there is benefit in a shorter period (4 years) relative to the 2014 and 2019 Determinations, given the additional uncertainty under which the review is being carried out.

### *Interaction between Building Blocks*

- 6.22 We have regard to the interactions between building blocks. We facilitate the target for Passenger numbers and Commercial Revenues by allowing achievable and efficient targets for operating costs and by allowing for the remuneration of the ambitious CIP that will enable the airport to handle 40m passengers per annum. We facilitate the

remuneration of the CIP by allowing an efficient Cost of Capital and checking that the price cap enables the allowed level of investment. In setting our Quality-of-Service targets, we have regard to the operational and Capital Costs building blocks.

- 6.23 Stakeholders should therefore be mindful of these interactions when developing their responses and consider whether a change they may wish to propose is likely to require or suggest changes to other building blocks.

## 7. Passenger Forecast

7.1 Our proposals forecast that passenger volumes will grow from 25.3 million in 2022 (representing 77% of 2019 levels as the industry continues to recover from COVID-19), to 35.2 million in 2026.

### Summary

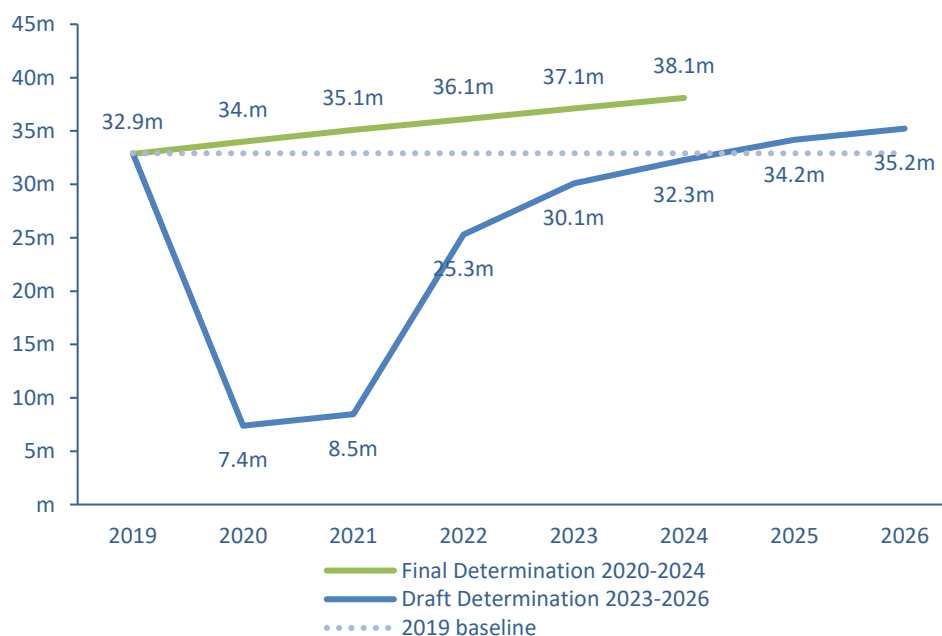
**Table 7.1: Passenger Numbers Outturns and Forecast**

	2017	2018	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
<b>Passengers, (m)</b>	29.6	31.5	32.9	7.4	8.5	25.3	30.1	32.3	34.2	35.2
<b>Annual Change %</b>	+6%	+6%	+4%	-78%	+15%	+199%	+19%	+7%	+6%	+3%
<b>% recovery versus 2019</b>	-	-	100%	22%	26%	77%	91%	98%	104%	107%

Source: Dublin Airport (2017 – 2021), CAR analysis

7.2 These figures are materially lower than those set out in the original 2019 Final Determination for 2020-2024. This reflects the impact of the COVID-19 pandemic. In 2020, passenger volumes fell to 22% of 2019, with only modest improvement in 2021. While monthly traffic volumes have been recovering since summer 2021 (with some reversal in the trend at the end of 2021 as a consequence of the Omicron variant) we do not anticipate that annualised passenger volumes at Dublin Airport will fully recover back to 2019 levels until early 2025.

**Figure 7.1: Comparison to 2019 Final Determination 2020-2024**

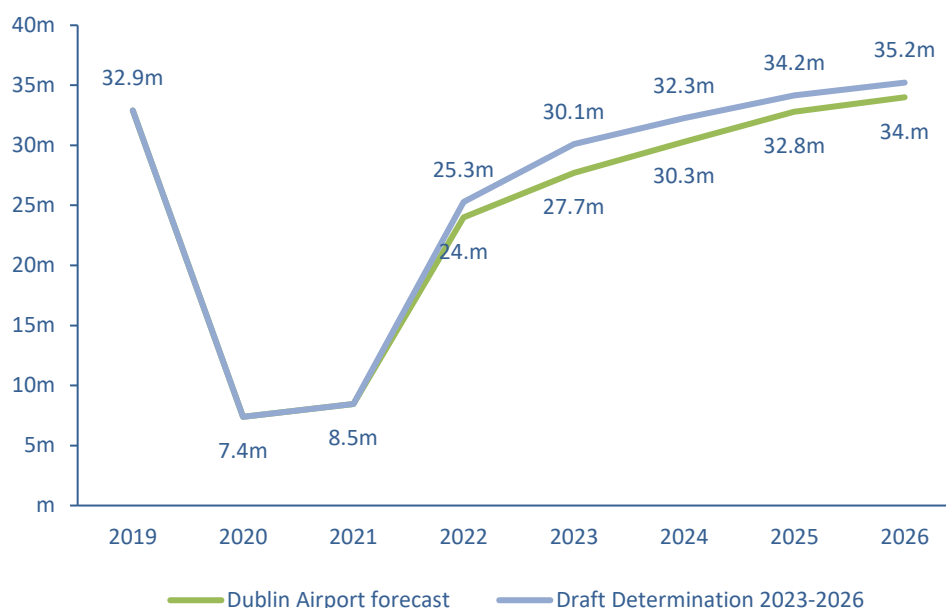


Source: CAR

7.3 Our draft forecast is higher than the projections provided in Dublin Airport’s Regulatory Proposition. Dublin Airport assume that the airport will serve 24 million passengers in 2022, rising to 34 million in 2026. That is, Dublin Airport projects that

passenger numbers will return close to 2019 levels by 2025, and then exceed that level in 2026.

**Figure 7.2: Comparison to Dublin Airport forecasts 2022-2026**



Source: CAR, Dublin Airport Regulatory Proposition

7.4 In recognition of the impacts of the pandemic on air traffic levels, and in particular the COVID-19 related decoupling of the historical relationship between air traffic activity and macroeconomic growth, we propose to amend the passenger forecasting methodology:

- For 2023 and 2024 it relies on an assessment of a mix of market information including Dublin Airport’s regulatory submission, insights provided by airlines operating at Dublin, short term traffic trend analysis, and comparison to other aviation industry forecasts on the pace of recovery from COVID-19. The evidence considered is described below.
- We assess that the decoupling of GDP and traffic will be temporary and that the historical relationship between these factors will reassert itself once full recovery of traffic levels has been achieved. Within 2025 (once full recovery to 2019 levels has occurred) and for 2026, the forecast methodology therefore reverts to the approach used for the original 2019 Final Determination. This relates traffic growth at Dublin to changes in Irish GDP and its associated air travel demand elasticity.

7.5 Below, we set out our consideration of potential approaches to the forecasts and the rationale for the methodology we are proposing.

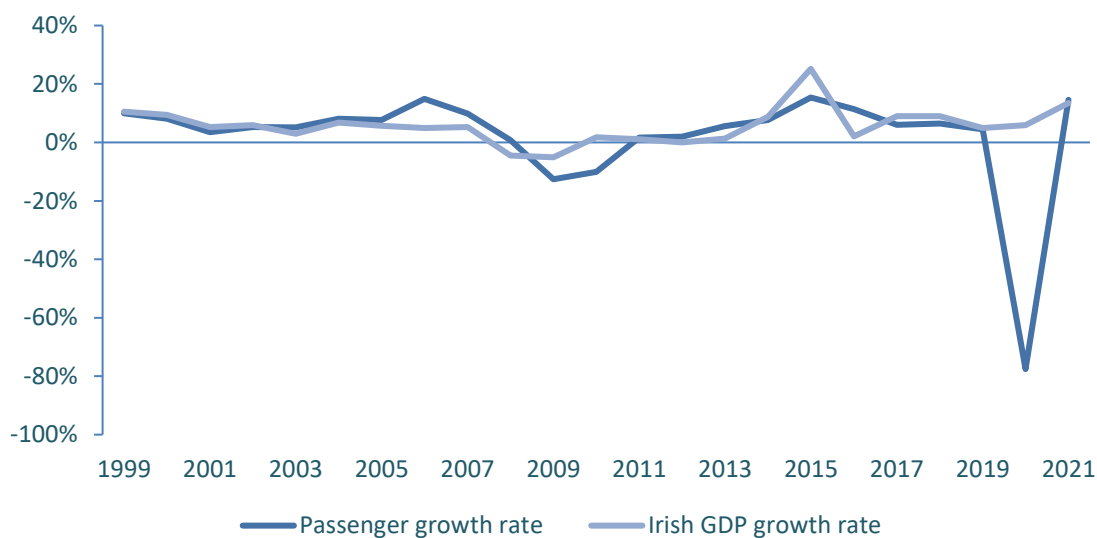
### **Methodologies and forecasts considered**

#### **Econometric Forecasting**

7.6 For the original 2019 Determination, we assessed a variety of potential passenger

traffic forecast methodologies. The selected approach was to use an elasticity of demand to Irish GDP (calculated through log-log regression analysis) to derive a series of forecast annual growth rates for passenger traffic. These were applied to a historical traffic volume baseline to derive the year-on-year passenger forecasts for the Determination period.

- 7.7 The forecast of Irish GDP used projections from the International Monetary Fund (IMF). Regression analysis found an air traffic demand elasticity of about 1.0 with respect to Ireland GDP growth.
- 7.8 The regression analysis developed for the Final Determination 2020-2024 used historical data up to and including 2018. We have extended that analysis to include the outturn growth of Dublin Airport traffic in 2019 and the growth of Irish GDP in that year, and found no material change to the demand elasticity, with a value of 1.03.
- 7.9 At the end of 2019, passenger numbers were trending slightly ahead of our forecast. The initial onset of COVID-19 had a dramatic effect on passenger volumes at Dublin. The airport served 7.4 million passengers in 2020, and only achieved this level as it was not impacted by the pandemic during January and February 2020 and served 'business as usual' traffic volumes in these months.
- 7.10 Monthly air passenger traffic volumes began to recover from summer 2021 as international air travel restrictions eased. Nevertheless, the airport traffic total for calendar year 2021 was only modestly higher than in 2020, at 8.5 million passengers.
- 7.11 This dramatic fall in volumes was attributable to a combination of government restrictions on personal movement and, especially before the onset of the mass vaccination programmes, the behavioural responses of individuals and populations anxious not to mix with other people and incur the risk of catching COVID-19.
- 7.12 However, real GDP growth continued in Ireland, producing a situation in which air traffic volumes (falling) became decoupled from macroeconomic development (increasing). IMF figures indicate that Ireland's real GDP grew by +5.9% in 2020, and +13.5% in 2021.
- 7.13 As a result, by the end of 2021 Dublin Airport's traffic had fallen to a level only 26% of the volume served in 2019. In contrast the Irish economy was 20% larger when measured in terms of real GDP.

**Figure 7.3: Dublin Airport traffic growth and Ireland GDP**

Source: Dublin Airport (traffic), IMF (GDP)

- 7.14 Evidence of the decoupling can be seen in statistical terms by extending the regression analysis up to and including 2021. In contrast to the highly significant results obtained from analysis of the period 1999 to 2018 or 2019, extension of the analysis to the COVID-19 impacted 2020 and 2021 had the effect of severely reducing both the  $r^2$  value<sup>21</sup> (to less than 0.2, and therefore statistically insignificant) and the demand elasticity (also to about 0.2). Please see Appendix 1 for further details.
- 7.15 The decoupling of GDP and traffic creates a methodological challenge for the assessment of likely passenger traffic growth over the coming years. As a result, it will be necessary to use a different forecasting methodology to that used for the Final Determination 2020-2024; at least for the period in which traffic volumes are recovering back to 2019 levels and, in the process, increasing at rates which are substantially faster than the historical relationship whereby passenger volumes have tended to grow at the same rate as Irish GDP.
- 7.16 We discuss alternative methodological approaches in the following, including:
- A methodology proposed by Dublin Airport;
  - Using the traffic recovery forecasts of other aviation sector organisations including the International Air Transport Association (IATA), EUROCONTROL, and ACI Europe, along with several peer airport groups;
  - Use of traffic growth forecasts provided by airlines serving Dublin;
  - Reference to the traffic recoveries being achieved at peer airports in Northwestern Europe; and
  - Analysis of recent traffic performance trends at Dublin along with forward

<sup>21</sup> R<sup>2</sup> is a measure of the **goodness of fit of a model**. The R<sup>2</sup> coefficient of determination is a statistical measure of how well regression predictions approximate real data points, where an R<sup>2</sup> of 1 indicates that the regression predictions perfectly fit the data.



expectations of airline capacity deployment for the remainder of 2022.

- 7.17 A combination of these approaches could be considered to assess traffic development, up to the point at which it reverts in full to the traffic levels it achieved prior to the onset of COVID-19.
- 7.18 Industry organisations such as EUROCONTROL and ACI Europe are assuming that traffic volume growth will tend to be in line with historical norms once activity levels have grown back to where they were prior to COVID-19. This suggests that it could be appropriate to use an econometric approach when developing the traffic forecasts for the latter, post-recovery, years of the 2023-2026 Determination period.
- 7.19 If Irish GDP (or a similar metric) is used as an input, it will be important that the values assumed are plausible and reflective of ‘business as usual’ rates of macroeconomic growth. In this respect Ireland’s GDP in both 2020 (which grew strongly when economies worldwide experienced deep recessions) and 2021 (double-digit growth over an inflated 2020 position) might be viewed as outliers. The latest, April 2022, GDP forecasts for Ireland from the IMF are as follows. They project a level of macroeconomic development between 2023-2026 which is broadly in line with the historical average.

**Table 7.2: Irish GDP Forecast 2023-2026**

	2023f	2024f	2025f	2026f
Annual Change	+5.0%	+4.0%	+3.0%	+3.0%

*Source: IMF (constant prices)*

- 7.20 We also considered potential changes to the econometric approach through use of alternative means to segment the traffic, and making corresponding use of more granular assumptions. Such changes might include the following, which are discussed below:
- Traditional GDP/traffic approach applied to non-connecting traffic only, with Dublin Airport’s connecting passenger traffic modelled separately; and/or
  - Use of a traffic-weighted blended International GDP rather than Irish GDP (a similar approach was considered for the original 2019 Determination although ultimately not used for the forecasts).
- 7.21 **Non-Connecting and Connecting traffic:** Prior to COVID-19, growth in connecting passengers (CAGR 2009- 2019: +17.7%) was faster than non-connecting traffic (CAGR 2009- 2019 +4.4%). Connecting passengers increased as a proportion of Dublin Airport’s traffic from 2% in 2009 to 6% in 2019.
- 7.22 In terms of macroeconomic stimulus to demand, Dublin Airport’s non-connecting traffic predominantly consists of passengers originating in Ireland, or foreign visitors to the country. Irish GDP can reasonably be viewed as a logical explanatory variable for air travel to/from the country by these passengers.
- 7.23 In contrast, Dublin’s positioning as a transatlantic hub airport sees it acting as a conduit for passengers travelling between Europe and North America. Irish GDP is less likely to

- be a logical explanatory variable for traffic flows which are taking advantage of the hub capacity on offer at Dublin Airport but which would not necessarily be visiting Ireland otherwise.
- 7.24 On that basis, there may be merit in forecasting non-connecting traffic in relation to a GDP driver and elasticity, whereas connecting traffic might be projected taking into account factors such as the proportion of Aer Lingus traffic which is transferring at Dublin, along with indicators of the growth of the carrier's capacity at the airport over the coming years.
- 7.25 For the non-connecting traffic, we have undertaken a similar regression analysis as per the total traffic, with the annual passenger volume for this segment analysed against the growth in Irish GDP. The statistical significance results are similar, including high  $r^2$  values, and the demand elasticities are close to 1.0 and therefore very similar to regressions on total traffic.
- 7.26 For the connecting traffic, we have analysed Dublin's transfer traffic market share in North-western Europe (defined for this purpose as Dublin, London Heathrow and Gatwick, and Keflavik). While small in comparison with the connecting market at Heathrow (over 27 million passengers in 2019 according to UK CAA Statistics), nevertheless Dublin Airport had developed its market share in the years prior to COVID-19, from 1.4% of the total traffic connecting through the four airports in 2012, to 6.0% in 2019.
- 7.27 Much of the connecting traffic has a leg to/from North America. In the period 2012-2019, North American volumes more than doubled (CAGR 2012-2019: +13.6%). In 2019 this included over 1.6 million passengers departing on flights from Dublin to the US. In contrast the total traffic growth through Dublin Airport averaged +8.1% in this seven-year period. This may continue to be a sector that offers above average growth at Dublin, particularly in the light of the likely re-emergence of tight runway capacity slot constraints at the London airports as the impact of the pandemic dissipates. Conversely, Dublin's own slot capacity is expected to be boosted by the opening of the new North Runway in August 2022. Risks to the sector could include the ongoing emergence of direct low-cost transatlantic air services which bypass hubs such as Dublin.
- 7.28 For this Draft Decision we have assessed that the rate of passenger growth in the market between Dublin and USA (CAGR 2023-2026: +7.8%) will continue to exceed the average for the airport as a whole. Our assumption is based on submissions from airlines flying between Dublin and the US, and also takes into account the historical rates of traffic growth relative to Ireland and US GDP (notably in the period 2015-2019), along with expectations of macroeconomic development through to and including 2026. On this basis, Dublin Airport is forecast to serve 2.4 million departing passengers in 2026 on routes to the US. This does not change our total passenger forecast but has been used to forecast Commercial Revenues from US Preclearance. We will continue to assess this segment ahead of the Final Decision and invite further comments from stakeholders.

**Table 7.3: US Departing Traffic Forecast**

	2023f	2024f	2025f	2026f
US Departing Pax (m)	1.91	2.1	2.29	2.4

Source: CAR

- 7.29 **Blended International GDP:** Based on data from OAG Traffic Analyser, on a traffic-weighted basis passengers originating in Ireland (defined by point of sale of air tickets) accounted for about 44% of Dublin’s non-connecting traffic in 2019.
- 7.30 We have calculated the blended International GDP at Dublin in 2017-2019, taking into account the point of sale of the top 27 originating passenger markets. Together these accounted for 97.5% of total non-connecting traffic in 2019. Using IMF, data the Blended International GDP values are set out in Table 7.4.

**Table 7.4: Blended International GDP**

GDP %	2017	2018	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
<b>Blended</b>	+5.4%	+5.2%	+3.3%	-1.4%	+9.4%	+4.2%	+3.4%	+2.8%	+2.4%	+2.3%
<b>Ireland (only)</b>	+8.9%	+9.0%	+4.9%	+5.9%	+13.5%	+5.2%	+5.0%	+4.0%	+3.0%	+3.0%

Source: IMF (April 2022, constant prices), OAG Traffic Analyser, CAR analysis

- 7.31 Further research would be required on developing the historical blended GDP series to then test the statistical robustness of the measure. However, from the perspective of more closely aligning passenger segments to their specific stimulatory GDP, it may be preferable to develop a blended approach.
- 7.32 At this stage, given the current uncertainties about the timing of full recovery to pre-COVID-19 traffic levels, these potential approaches have not been adopted into our forecasts for the latter years of the 2023-2026 Determination period. However they remain options for implementation at some point in the future.

### Overview of Dublin Airport Forecasts

- 7.33 In its Regulatory Proposition, Dublin Airport comments that the impact of COVID-19 and other factors on recent aviation activity is such that the previously assumed link between GDP and passenger traffic growth has been broken.
- 7.34 Dublin Airport has therefore proposed that the passenger traffic forecasts should be based on a methodology which combines:
- A judgement-based forecast for 2022 to set out the baseline;
  - Business intelligence; and
  - Reference to industry forecasts.
- 7.35 In its passenger traffic modelling Dublin Airport has taken into account these individual components as follows:

- Judgement-based 2022 forecast: this has been developed with reference to recent airline schedules for 2022 and estimates of potential load factor performance.
  - Business intelligence:
    - o Dublin Airport has projected the recovery in movement capacity to 2026 using EUROCONTROL's October 2021 Terminal Navigation Service Unit forecasts for Ireland. These assess full recovery to 2019 levels in aviation activity at some point during 2026.
    - o Dublin Airport has assessed upper and lower bounds for load factor performance for each year up to and including 2026.
    - o Monte Carlo simulation has been applied to the forecasts of movement capacity and load factors to produce a ranged annual passenger traffic forecast.
  - Industry forecasts: Dublin Airport has undertaken a 'sanity check' to compare the growth rates from its annual passenger forecasts to those produced recently by other industry commentators (ACI Europe, IATA, S & P Global Ratings, ACI World, Boeing, Airbus).
- 7.36 Development of the passenger traffic volumes in accordance with the Dublin Airport forecast would mean that a full recovery to 2019 (pre-COVID-19) volumes would be achieved in early 2026.
- 7.37 As a cross-check, Dublin Airport has commissioned Mott MacDonald to develop an independent passenger traffic forecast for the 2023-2026 period. The Mott MacDonald forecasts are higher than those of Dublin Airport for 2023 and 2024, but broadly similar in 2025 and 2026.

#### *Overview of other Forecasts (industry organisations)*

- 7.38 Forecasts for global and European air traffic recovery have recently been published by organisations including IATA, EUROCONTROL, and ACI Europe.

##### [IATA](#)

- 7.39 The most recent IATA traffic forecasts were published in March 2022. They take into account the impacts of Omicron but were prepared before the onset of the Russian invasion of Ukraine (IATA note that impacts from the conflict are most likely to be felt in Ukraine, Russia and neighbouring countries).
- 7.40 The IATA projections are split by market and world region and are expressed in terms of % recovery per individual year versus 2019 traffic levels. These include:
- Global International travel: recovery to over 100% of 2019 passenger levels during 2025 (note that the global forecast recovery is delayed by the slower projected recovery of International traffic in Asia).
  - Intra-Europe: recovery to over 100% of 2019 passenger levels during 2024.

7.41 IATA has also shared with us a latest forecast of Origin and Destination air passenger traffic for Ireland. This forecasts full recovery to 2019 levels during 2023.

**Figure 7.4: IATA Ireland Origin-Destination Passenger Forecast (2019 = 100)**



Source: IATA (May 2022)

[EUROCONTROL](#)

7.42 EUROCONTROL (STATFOR) issued an air traffic forecast for 2021-2027 during October 2021 and published an updated projection for 2022 (only) during April 2022, and then a forecast for 2022-2024 in June 2022.

7.43 EUROCONTROL publishes forecasts for three different air navigation related parameters:

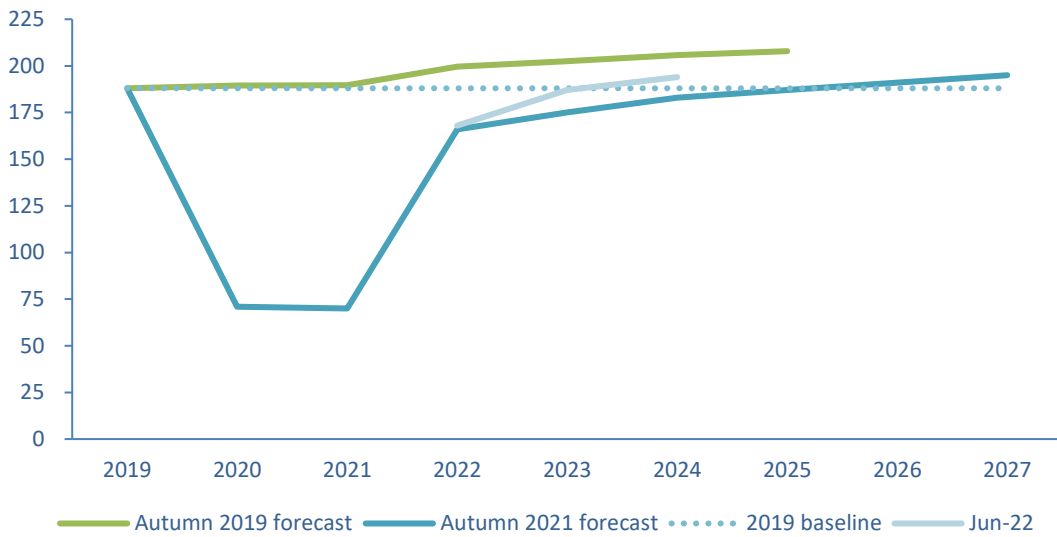
- IFR movements
- En-route service units
- Terminal service units

7.44 The April 2022 update assumes that pan-European movement traffic may reach 92% of 2019 levels by the end of the calendar year. We understand from STATFOR that the next full forecast will be published in October 2022, in time for the Final Decision on this review.

7.45 The October 2021 forecasts assumed a base case position in which Ireland's total IFR movements recover in full to 2019 levels during 2025. At the EU27 level the recovery is slightly faster, reaching 2019 levels in full late in 2024.

7.46 EUROCONTROL's October 2021 forecast for Terminal Service Units (TNSU) assumed recovery to 2019 activity levels in early 2026. For comparison EUROCONTROL's equivalent TNSU forecast from Autumn 2019 assumed that by 2025 (the last year of that projection) movements would be +9.5% higher than 2019 levels in absolute terms. The latest forecast from June 2022, which only extends to 2024, shows TNSUs almost reaching 2019 levels in 2023.

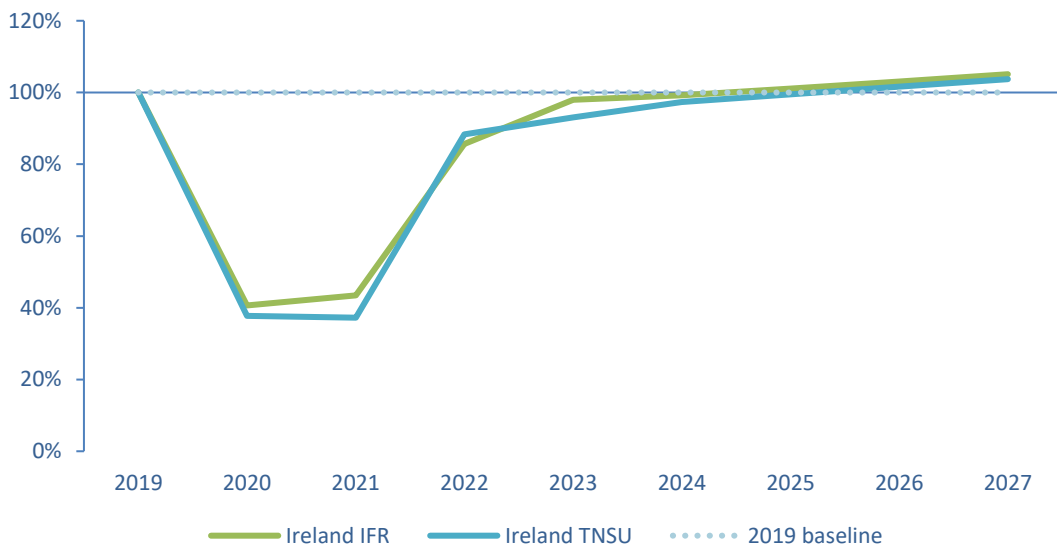
**Figure 7.5: EUROCONTROL Ireland TNSU Forecasts (service units, 000s)**



Source: EUROCONTROL STATFOR

7.47 The EUROCONTROL TNSU forecasts are particularly important as these form a key input to Dublin Airport’s current traffic forecasts, where the TNSU projections for Ireland are used as the ‘capacity variable’ i.e. the indicator of potential flight movement growth at Dublin over the Determination period. If Dublin Airport used the recovery trend for Ireland’s IFR movements instead this could be expected to result in a faster growth profile for passenger traffic through the 2023-2026 period, as IFR movements are projected to recover modestly faster in each individual year from 2026 than TNSUs.

**Figure 7.6: EUROCONTROL Ireland TNSU & IFR Movement Forecasts (% of 2019)**



Source: EUROCONTROL (Autumn 2021)

7.48 However, the IFR forecasts refer to all movements using Irish airspace, including en-route overflights. In contrast, the TNSU measure refers to activities at the three State airports only. On balance we therefore assess that the TNSU forecasts are the most

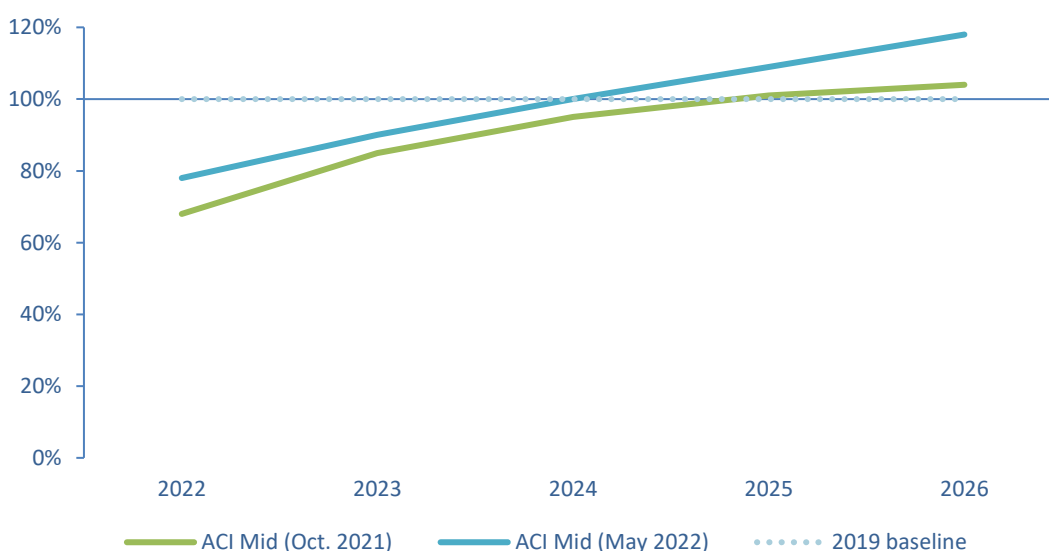
appropriate set within the EUROCONTROL suite of projections against which the Dublin Airport traffic recovery profile can be benchmarked.

- 7.49 It should be noted that EUROCONTROL’s forecasts are for the development of movements, whereas the Dublin Airport projections refer to passengers. Given potential lags to load factor recovery to 2019 levels, it is possible that passenger traffic recovery may show some delay relative to the assumed recovery of movements.

ACI Europe

- 7.50 ACI Europe issued its latest passenger traffic forecast in May 2022. The ACI Europe base case position is for traffic levels at Europe’s airports to recover to 78% of 2019 levels during 2022, representing an improvement from its October 2021 forecast (68%). Full recovery to 2019 traffic volumes is now assumed for 2024 rather than the previous ACI Europe assumption of 2025. In revising their forecasts upwards, ACI has noted the downside risks to traffic from the potential for new COVID-19 variants, worsening of the war in Ukraine, and global macroeconomic conditions.

**Figure 7.7: ACI Europe projected Traffic Recovery trend**



Source: ACI Europe

- 7.51 Dublin Airport previously noted the closeness between their traffic forecast recovery trend for 2023-2026, and the equivalent ACI Europe trend (derived at that time from ACI’s ‘Mid’ scenario forecast of October 2021). However a gap has now emerged between the recovery forecasts of the respective institutions given that ACI Europe’s recovery trend has come forward by one year (i.e. full recovery to 2019 levels in 2024 not 2025).

Other airports

- 7.52 Several other major European airports have recently published air passenger forecasts covering periods of time within the next 5 years. These are summarised below (expressed in terms of the % volume recovery they represent versus 2019 activity levels).

**Table 7.5: Forecast Passenger Traffic Recovery to 2019 levels**

Airport	2022f	2023f	2024f	2025f	2026f
Dublin Airport	73%	84%	92%	100%	103%
London Heathrow	65%	n/a	n/a	n/a	n/a
London Gatwick	66%	86%	n/a	n/a	n/a
Paris Airports	70-80%	85-95%	90-100%	95-105%	n/a
Munich	n/a	n/a	c.100%	n/a	n/a
Frankfurt	55-65%	n/a	n/a	n/a	n/a

Source: Dublin Airport, individual airport websites

- 7.53 It can be seen that recovery levels are assumed to vary from airport to airport depending on local circumstances. To the extent that there is consensus, the key points are:
- General expectation of ongoing recovery back to 2019 levels over the next few years.
  - Attainment of 100% of 2019 volumes during the 2024-2026 period.

### Summary

- 7.54 In the circumstances of the COVID-19 pandemic it is natural that, at this time, there remains a variety of viewpoints on the pace at which air passenger volumes will recover in full to 2019 levels.
- 7.55 Dublin Airport's current forecasts assume a longer recovery period from COVID-19 than the IATA projections (International and Intra-Europe). IATA have shared a country-specific forecast for Ireland which assumes full recovery to 2019 Origin-Destination passenger levels in 2023.
- 7.56 Dublin Airport's current forecast for the full recovery of traffic volumes is in line with EUROCONTROL's most recent longer range TNSU forecast for Ireland. The EUROCONTROL forecast was published in October 2021 and we understand that an update to these projections will be available to us in October 2022 (and therefore ahead of the Final Decision).
- 7.57 The May 2022 update to the ACI Europe traffic forecast has brought their assumed full recovery point forwards by one year and opened up a gap to the Dublin Airport forecast (which assumes full recovery to a similar timeline as assumed in the earlier October 2021 forecast from ACI Europe). ACI Europe are now assuming full recovery across Europe in 2024.
- 7.58 Published forecasts from other European airports generally assume full attainment of 2019 traffic levels at some point in the 2024-2026 period. Dublin Airport is assuming 2026.

### Overview of other forecasts (airlines serving Dublin)

- 7.59 Airlines serving Dublin Airport have been invited to share views on their individual traffic development plans for the airport during the forthcoming 2023-2026 period.



- 7.60 Confidential submissions have been received by Dublin Airport from eleven carriers. In overall terms, the airlines that provided insights on their future capacity and traffic plans accounted for 82% of the passenger traffic served from Dublin in 2019. This comprised ten carriers that responded directly to the consultation led by Dublin Airport (including Ryanair). Aer Lingus has provided the Commission with a forecast directly.
- 7.61 In summary, a wide range of views have been presented, which reflects the different operating circumstances and sizes of the individual airlines who have submitted responses. Key points that can be drawn from the responses are:
- On aggregate the level of traffic assumed by airlines for 2023 represents a higher degree of recovery versus 2019 (89%) than assumed by Dublin Airport (84%).
  - All but one of the respondents anticipate ongoing growth in volumes after 2023 (with the single other airline assuming no change).
  - On average the projected percentage rates of traffic development for 2023-2026 are lower than those assumed by Dublin Airport. However, the airline views assume a higher aggregate 2023 starting position relative to Dublin Airport as noted above.

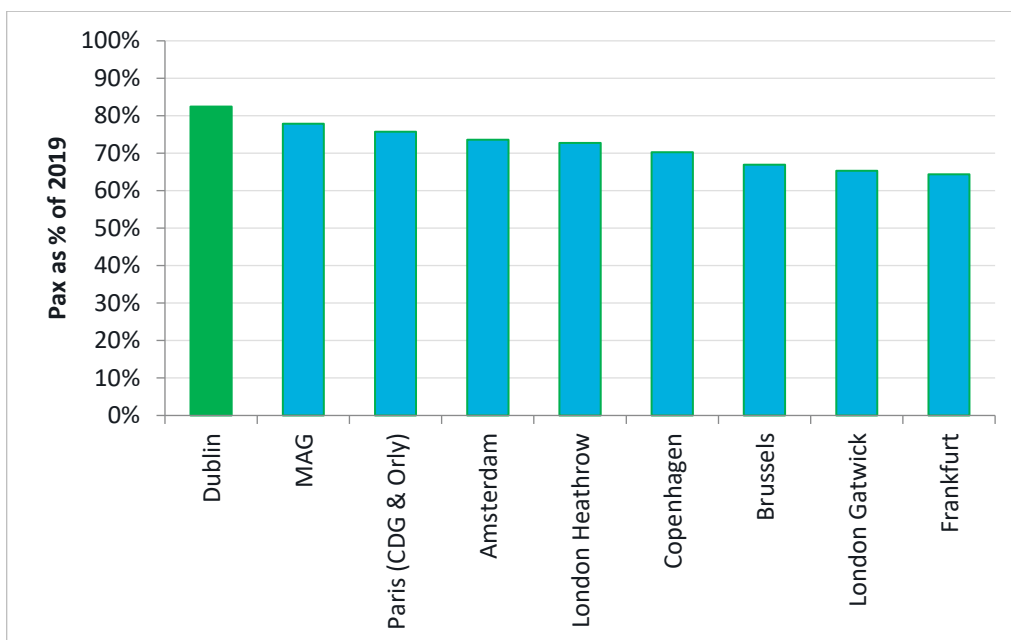
#### *Latest traffic performance trends at Dublin Airport*

- 7.62 Traffic performance during 2022 can be a useful forward indicator of prospects for the 2023-2026 review period, at least in terms of its early years. A faster rate of actual traffic development than assumed for 2022 could signal that the Dublin Airport forecasts are potentially conservative. On the other hand, a slower rate could signal challenges to achieving the forecasts in full.
- 7.63 Our review indicates that the latest performance trends and market data are supportive of Dublin attaining at least the level of traffic in 2022 assumed by Dublin Airport, with upside potential if airlines deliver close to the levels of capacity currently indicated in their schedules for the year.
- 7.64 It should be noted that the Irish aviation sector has benefitted through the pandemic from the injection of finance by Government schemes. These include the provision of €350 million debt support to Aer Lingus by the Irish Strategic Investment Fund ('ISIF'), €730 million for Ryanair from the UK's Covid Corporate Financing Facility ('CCFF'), and Ireland's €90 million traffic recovery incentive package which is reducing the level of Airport Charges payable in 2022, relative to the price cap.
- 7.65 During the pandemic, similar financial aid packages were provided in various Member States of the European Union. These consisted of a combination of schemes supporting national aviation sectors, and State Aid support to individual airlines.
- 7.66 On a May 2022 year-to-date ('YTD') basis, Dublin Airport served c.9.2 million passengers, a level equivalent to 74% of the traffic served during January – May 2019. Given the May YTD traffic performance a recovery level of 72% over June-December 2022 would be sufficient to deliver the Dublin Airport passenger forecast of 24.0m for calendar year 2022 as a whole. The rate of recovery for the combined March - May

2022 period in total was higher, at 82% of the equivalent 2019 levels.

- 7.67 In terms of recovery, this illustrates that Dublin is closer to full recovery to 2019 volume levels than a selection of major airport peers in Northwest Europe, where recovery levels over this period have varied within a range of 64% – 78%.

**Figure 7.8: Peer Passenger Traffic % Recovery to 2019 levels (March-May\* 2022)**

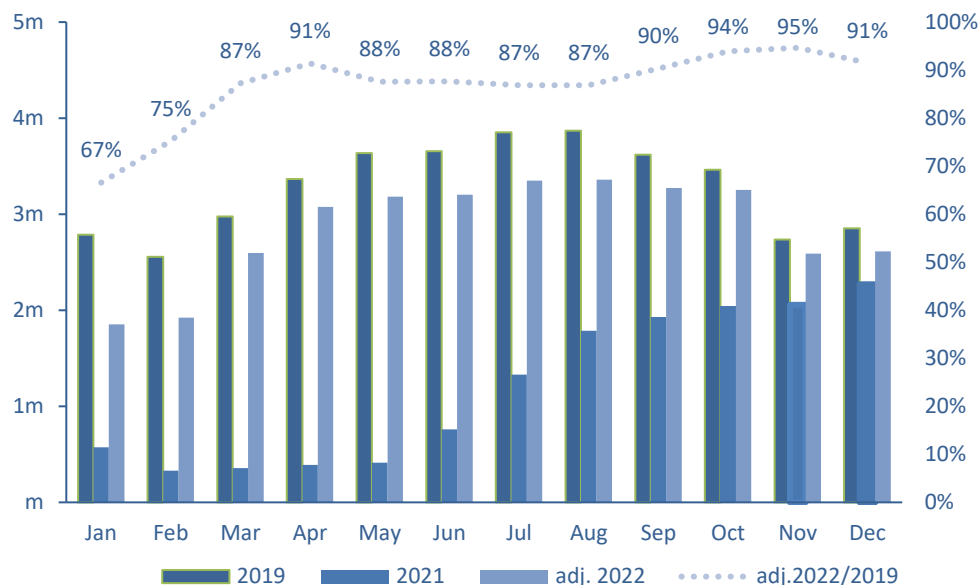


Source: Dublin Airport, UK CAA, selected airport websites

Note: \* London Gatwick: includes estimate of the May recovery trend based on published data from Vinci Airports

- 7.68 If Dublin Airport can support a similar level of traffic recovery through the remainder of the year, there will be a corresponding increase in the overall traffic outturn for 2022. An 82% recovery rate through June-December 2022, added to the May 2022 YTD position, would yield a passenger traffic total for Dublin of c.26.1 million passengers for calendar year 2022 as a whole. Such a level would provide additional support to the likelihood of the Dublin Airport forecast for the Determination period being achieved, and potentially signal upside to the projections.
- 7.69 The latest airline schedules for 2022 point to further potential strengthening of the recovery trend through the year. Schedules data from OAG (May 2022) which indicates the volume of monthly seat capacity, and the recovery trend (for capacity) is presented below. The left axis and bars show the level of seat capacity, and the right axis and dotted line show the monthly 2022 forecast as a percentage of the 2019 level.

**Figure 7.9: Dublin Airport Monthly Airline Seat Capacity (millions, and as % of 2019)**



Source: OAG, CAR analysis

Note: We have adjusted the published capacity volumes for May-December 2022 downwards by 6% to allow for potential service cancellations (see adj.2022 values in chart).

- 7.70 Based on this data, the airline capacity trend is set to be close to 90% of 2019 levels through the remainder of 2022, with airlines offering circa 35.1 million seats during 2022.
- 7.71 Load factors remain below the levels of 2019 but are also recovering. For the first 5 months of 2022, we calculate that airline load factors at Dublin averaged 73%, which is about 8% points lower than in the corresponding January-May 2019 period. Continuation of a similar trend through the remainder of the year would result in an average load factor at Dublin in 2022 of 75%.
- 7.72 The provision of 35.1 million seats at 75% load factor would provide the airport with 25.9 million passengers in 2022. This would surpass the Dublin Airport forecast for 2022 by 1.9 million passengers and would lessen the traffic growth required in 2023 for Dublin Airport’s forecast for that year to be attained (from +15.4% versus 2022, to +6.9%).
- 7.73 As a downside assumption, if additional aviation staffing-related risks to full schedule delivery are considered, a potential outturn for 2022 could be of the order of c.25.3 million passengers. This assumes that monthly capacity levels during the remainder of summer 2022 do not exceed the level provided in May (estimated to be c.3.2 million two-way seats, from OAG). We have used the forecast of 25.3 million passengers as our current assessment for 2022.
- 7.74 It should be noted that performance trends to date and short-term expectations for 2022 are not necessarily a strong indicator of how volumes will develop over the review period. The trends signal the prospect of faster volume growth than assumed by Dublin Airport, and this is supported by the airline capacity picture which is also

positive. However, passenger demand levels will be influenced by a combination of factors, and there are emerging threats which could adversely influence the recovery trend. These include ongoing risks from:

- The emergence of new COVID-19 variants and/or other viruses with medical significance sufficient to lead to the re-introduction of international travel restrictions and other constraints on public mobility;
- Escalation of the War in Ukraine;
- Macroeconomic slowdown/recession; and
- Further mismatch between passenger demand and the ability of the aviation sector to provide the supply to fully meet that demand (e.g. flight cancellations).

7.75 We have drawn together these various pieces of market evidence to assess traffic prospects for the airport in 2023 and 2024.

- For 2023 our forecast reflects a midpoint estimate between indications provided by the airlines and our assessment of the potential movement in Dublin Airport's forecast if the updated ACI projections were taken into account.
- For 2024 our forecast also follows an assessment of the change in Dublin Airport's projections should the new ACI data be taken into account. In turn this produces a forecast which is positioned within the range of indications provided by the airlines.
- Once traffic has recovered to 2019 levels, we then revert to the methodology of the original 2019 Determination by using a GDP based model.

7.76 In summary, we assess that the recent market data is supportive of a higher passenger forecast than proposed by Dublin Airport, especially in the early years of the 2023-2026 Determination period.

### Issues Paper Responses on Passenger Forecasting

7.77 ACI considers that the airport should have full responsibility for the forecast methodology used as it is the party that bears the responsibility of dealing with the difference between actual outturn and the forecasts. It further states that while there may be an incentive to underestimate the forecast in the short run, this is not the case in the long run. It claims that the airport's continued and repeated engagement on forecasts is sufficient to ensure that it will develop and consult on an accurate forecast.

7.78 Aer Lingus express the view that a strong recovery is likely in 2022. It highlights that there is possibly a difference between the level of uncertainty surrounding traffic during the recovery period and during the period when the recovery from COVID-19 is almost complete. It agrees with our suggestion in the Issues Paper that traditional econometric models may not perform well in the immediate future but believes that when we are past the COVID-19 recovery phase, the previous relationships will be re-established. Aer Lingus suggests that we carry out a bottom-up forecast for the first 2 years which would be based on a synthesis of traffic forecasts for Dublin Airport, and in particular airlines. For the final 2 years, it suggests that a GDP based forecast could again be used.

- 7.79 Aer Lingus, British Airways and Ryanair highlight the importance of an efficient price cap to ensure that the recovery of traffic continues.
- 7.80 British Airways states that our key concern for passenger forecasting should be how quickly traffic will return to 'normal' levels at the airport. It expects traffic to return to 2019 levels by 2024, and that at this point the normal relationships will be reasserted.
- 7.81 Ryanair states that the passenger forecasts must account for the price of air travel as well as GDP. It notes the relationship between passenger numbers and the price of air travel, claiming that the combination of GVA, taxes and airport charges provides the most robust relationship. In terms of a baseline for the forecast, it states that most forecasts are using a 2019 baseline and looking at relative change. Ryanair expects that the normal response to economic and price factors will return by the mid-2020s. It notes the importance of allowing users the opportunity to sign off on the forecasts given the levels of uncertainty at present.
- 7.82 Dublin Airport emphasizes the importance of transparent engagement with airlines in determining the baseline for a forecast so that their plans and outlook for 2023 is understood. It also states that an understanding of when the first normal year of growth will occur could be considered when defining the baseline.
- 7.83 Dublin Airport does not believe that a GDP based model is an appropriate method to forecast traffic accurately due to the decoupling of Irish GDP from traffic since the beginning of the COVID-19 pandemic. It also states that a long-term forecast would be an unsuitable methodology, but a long term CAGR could be used to calculate future growth. It states that a multivariate causal forecast may be a suitable alternative, depending on the variable selection. It suggests that other variables that trended similarly to traffic in Dublin and are related to industries that face similar issues in terms of recovery could be used. It is in favour of using a disaggregated forecast to determine the baseline for 2022 and/ or 2023, but it would be inappropriate for later years. Similarly, it suggests that a judgement-based forecast could also be used for 2022 but would likely be difficult beyond this. It also sees industry forecasts as a possible option, stating that it could be used to calculate output for 2023-2026. It states that a combination of these methodologies will likely provide the most accurate forecast.
- 7.84 Dublin Airport assesses that the State funded incentive schemes will need to be considered when forecasting as this is priced into the additional capacity in these years.
- 7.85 Dublin Airport proposes that we use a combination of disaggregated and judgement-based forecasts along with the latest industry/benchmark analysis available.

### *CAR Response*

- 7.86 In the circumstances of the pandemic and the ongoing recovery of traffic levels, it is evident from our research and the views expressed by stakeholders that historical forecasting approaches are not appropriate at this point and may not be until activity levels have recovered back in full to pre-COVID-19 levels.

- 7.87 Traditional econometric approaches are likely to become appropriate again beyond this point, but in the period up until then it will be important to use approaches which reflect the pace at which passengers and airlines are responding to the re-opening of international markets for air travel, along with background macroeconomic growth.
- 7.88 The forecasting methodology used will need to be capable of being supported by the necessary input data. For example, econometric approaches have historically been able to incorporate publicly available GDP forecasts as inputs, but similar data for air fares has not been accessible.
- 7.89 We have considered all submissions received to date in developing and implementing our proposed methodology. As outlined above, we propose the following methodological approach to the traffic forecasts for the 2023-2026 Determination period.
- 7.90 Up to the point at which traffic levels reach full recovery versus 2019 volumes: use of the approach advocated by Dublin Airport (i.e. a combination of establishing a baseline for 2022 and reference to market intelligence and the forecasts of other aviation industry organisations), however updated to reflect the very latest market evidence and industry forecasts, and alternative indicators. This includes:
- Update of the 2022 baseline: latest airline schedules for Dublin, and ongoing analysis of year-to-date actual traffic trends at the airport, including volumes and % load factors. The baseline forecasts should also reflect the extent to which current market risks (e.g. Ukraine conflict) are impacting, or not, on traffic volumes at the airport.
  - Market intelligence: application of the views expressed by airlines, which currently indicate the implied expectation of a higher degree of traffic recovery in 2023 and 2024 than assumed by Dublin Airport.
  - Aviation industry forecasts: incorporation of updated EUROCONTROL and ACI Europe forecasts, including the use of the EUROCONTROL IFR movement recovery trend for Ireland where this demonstrates a faster growth expectation than the equivalent TNSU projection.
- 7.91 Beyond the point of full recovery to 2019 volumes, we propose to revert to the econometric approach used in 2019 i.e., forecast growth based on a combination of GDP and air travel elasticities. For future determination periods, it may be appropriate to consider whether different approaches might be used (for example the use of traffic-blended International GDP inputs, or more disaggregated approaches based on the development of forecasts for individual markets). However, at this point, given the uncertainties about when full recovery will be established, it is appropriate to retain the approach set in 2019 where Ireland GDP growth is used as the key macroeconomic variable.
- 7.92 It may also be appropriate at a future point to re-assess the traffic elasticities, and in particular seek to quantify the extent to which they may be evolving in response to journey purpose changes (notably with respect to business travel) and/or changes in air fares to reflect the ongoing costs of transition to net zero.

7.93 We note that the State funded incentive schemes are likely to have an impact on 2022 traffic levels, as suggested by Dublin Airport. On the other hand, the current operational challenges being experienced by the industry in Ireland and elsewhere are manifesting through cancelled flights and likely depressing passenger demand. We also note that our draft pricing outcome is materially lower than that proposed by Dublin Airport, which in turn is expected to stimulate traffic upside relative to Dublin Airport's proposals and its forecast.

### **Anticipated Changes for the Final Decision**

7.94 This proposed approach will necessitate a refresh of certain data inputs ahead of the Final Decision:

- Update of the 2022 baseline including latest airline schedules and assessment of the year-to-date actuals trend.
- Refresh of wider aviation industry forecasts, notably EUROCONTROL and ACI.
- Consideration of any further data provided by airlines and/or Dublin Airport, including evidence in relation to the market between Dublin and North America.
- Assessment of extent to which identified risks have materialised or not e.g., material upswing in COVID-19 cases and/or hardening of rules on international air travel.
- Further update to IMF GDP projections (if available).

7.95 Therefore, as well as considering submissions in relation to our proposed methodology, we expect to update the forecasting inputs where relevant ahead of the Final Decision.

## 8. Operating Expenditure

### Summary

Table 8.1: Operating Expenditure Outturns and Targets, 2019 -2026

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
<b>Opex Outturn / Target, (€m)</b>	303.7	190.9	160.2	263.4	295.7	311.6	322.0	327.6
YoY Change		-37.2%	-16.1%	64.4%	12.3%	5.4%	3.3%	1.8%
<b>Per passenger, (€)</b>	9.23	25.83	18.94	10.42	9.82	9.65	9.43	9.30
YoY Change		179.9%	-26.7%	-45%	-5.7%	-1.7%	-2.4%	-1.3%

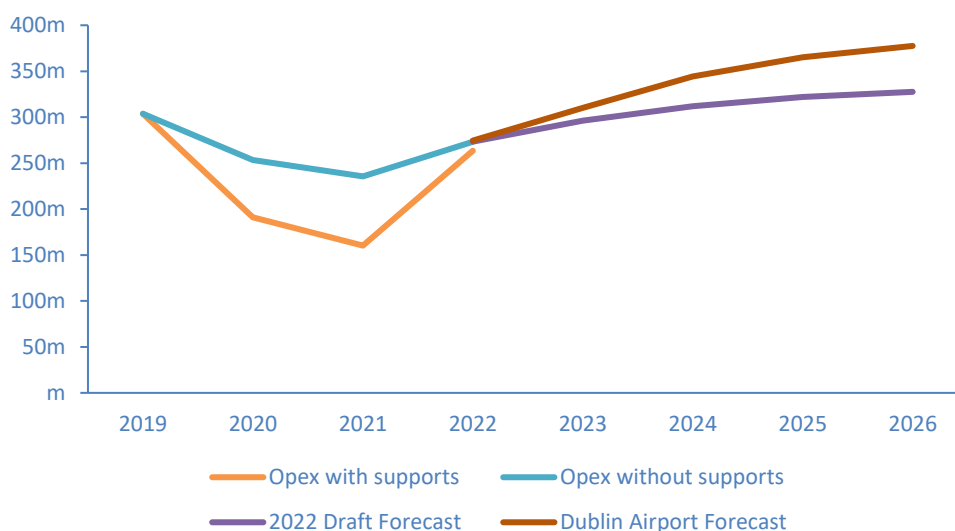
Source: CAR

- 8.1 Our proposed target for Operating Expenditure (Opex) is €295.7m in 2023, increasing to €327.6m by 2026.<sup>22</sup>
- 8.2 Chart 8.1 shows that Dublin Airport’s outturn Opex was €303.7m in 2019. Opex was reduced significantly during the Covid-19 pandemic, to €160.2m in 2021. Further Government support was provided through the general wage subsidy and rate waiver schemes. In 2021, outturn Opex was 49% below the target we set in the original 2019 Determination.
- 8.3 There were a number of efficiencies achieved by the airport during the pandemic. For example, it introduced ‘new ways of working’ to improve the flexibility of its workforce. These have been taken into account in our forecasts. However, more broadly, this reduced level of Opex cannot be sustained if Dublin Airport is to return to the high levels of service it provided to 33m passengers in 2019. We assess that it must increase significantly this year, and again in 2023. As passenger numbers are forecast to exceed 30m in 2023, we correspondingly expect Opex to return close to 2019 levels in real terms, and to then exceed that level from 2024 on.

<sup>22</sup> In nominal terms (when inflation is included), we expect Opex to exceed €310m in 2023, and to grow to approximately €370m by 2026.



**Chart 8.1: Outturns and Proposed Opex Allowances**

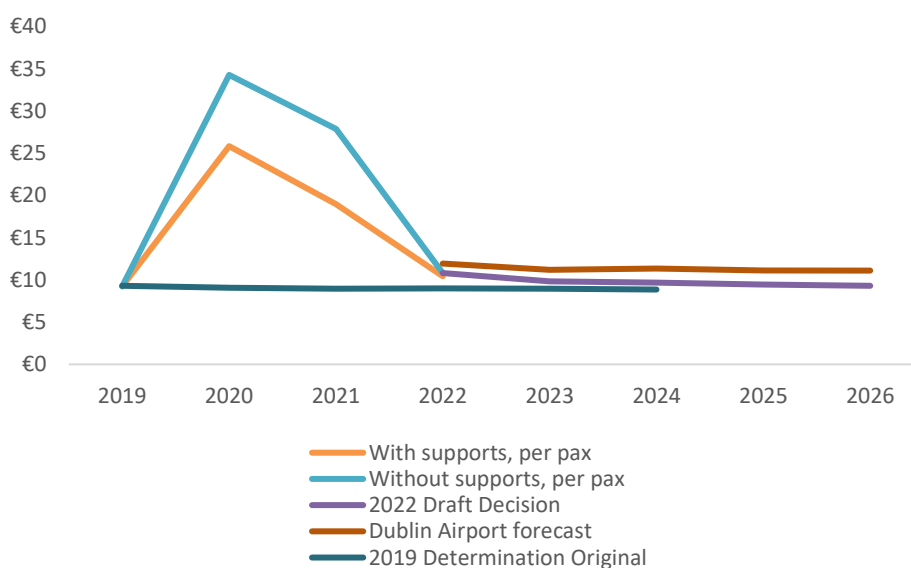


Source: CAR, CEPA, Dublin Airport

8.4 Chart 8.1 also shows our forecasts compared to Dublin Airport’s. Using its own traffic forecasts, Dublin Airport suggests that real Opex will increase to €377m by 2026. This compares to real Opex in 2019 of €304m, a year in which Dublin Airport processed 33m passengers.<sup>23</sup>

8.5 Chart 8.2 shows Opex per passenger outturns from 2019 to 2021, and forecasts from 2023-2026. The impact of the pandemic is apparent over 2020 and 2021, as, while Dublin Airport made significant savings as outlined above, the fall in passenger numbers remained proportionally greater.

**Chart 8.2: Opex per Passenger Allowances and Outturns**



Source: CAR, CEPA, Dublin Airport

<sup>23</sup> In nominal terms, we forecast that Dublin Airport’s proposal would equate to approximately €420m in 2026.

- 8.6 On a per passenger basis, real Opex was €9.23 in 2019. As passenger numbers grow back to 2019 levels and beyond, we forecast that Opex per passenger will trend steadily back towards that level in real terms, going from €9.82 in 2023, to €9.30 in 2026.
- 8.7 On the other hand, Dublin Airport suggests that Opex per passenger, in real terms, will stay broadly constant above €11 in each year 2023-2026.

### Background and Forecasting Approach

- 8.8 Firstly, it is important to note that the Commission does not set the actual levels of staffing or pay at Dublin Airport. The only compliance element of a determination relates to the overall price cap. Dublin Airport is not required to achieve the individual targets precisely as we set out, or indeed to achieve the Opex target at all. For example, if it underperforms on Opex but outperforms on passenger numbers or Commercial Revenues, it may still outperform the regulatory settlement overall. This is what occurred over the period 2015-2019.
- 8.9 Therefore, assumptions such as the number of assumed FTEs or unit staff costs which we use to build up our targets should not be taken as a requirement on Dublin Airport to staff specifically to those numbers or to implement the corresponding organisational structure.
- 8.10 It is, however, important that our targets consider the interests of all airport stakeholders in striking an appropriate balance between challenge and achievability. An Opex target which is too challenging has the potential to impact Dublin Airport's service quality and/or financial metrics. On the other hand, a target which is insufficiently challenging would reduce the value which Dublin Airport provides to current and future users.

### Approach in Original 2019 Determination

- 8.11 The original 2019 Determination was supported by a bottom-up efficiency analysis undertaken by CEPA and Taylor Airey.<sup>24</sup> They found that higher than expected passenger numbers over 2015-2019 had prompted the airport to rapidly recruit staff to inefficient levels in certain areas. This inefficiency was somewhat obscured as the 2014 Determination was set under an assumption of slower passenger growth, allowing Dublin Airport to still significantly outperform the 2014 Determination overall. CEPA and Taylor Airey identified scope to improve the productivity of key staff groups. In Security, Facilities and Cleaning, Maintenance and Retail, they found that less flexible working patterns for Terminal 1 staff limited opportunities for greater efficiency. In Central Functions, they demonstrated that the number of administrative staff was higher, on a normalised basis, than other airports of similar size.
- 8.12 The efficient 2019 cost baseline established by CEPA/Taylor Airey was materially below

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<sup>24</sup> Draft Report:

<https://www.aviationreg.ie/fileupload/2019/Draft%20Determination/2020-2024%20Draft%20Opex%20Efficiency%20Study.pdf>

Final forecasts:

<https://www.aviationreg.ie/fileupload/2019%20Determination/Final%20Determination/Final%20Opex%20Efficiency%20Report.pdf>

the actual costs which we knew would be incurred by Dublin Airport in 2019. As a result, we set a glidepath from 2020 to 2024 to allow the airport time to achieve the identified efficiencies. On appeal, in 2020, the length of this glidepath was then reduced to cover 2020 and 2021 only. We set an allowance in the 2019 Determination of €308m in 2020, increasing to €338m in 2024 (a year for which we then expected 38m passengers).

- 8.13 The updated Opex forecasts in this Draft Decision are based on further analysis performed by CEPA and Taylor Airey, having reviewed the conclusions of their 2019 assessment in light of the change in circumstances due to the pandemic, new evidence presented by Dublin Airport, and wider experience in the sector. They have also considered new issues that have emerged in the intervening period. As a result of the changes made by the airport during the pandemic, its own forecast Opex in 2022 is broadly aligned with our own.<sup>25</sup> Thereafter there is significant divergence between our forecast and Dublin Airport's. There are two main drivers of difference; wage growth assumptions, and the number of additional FTEs assumed to be employed over the period.

### Bottom Up Efficiency Assessment

- 8.14 We again commissioned CEPA, supported by Taylor Airey, to develop a bottom up forecast of efficient Opex for Dublin Airport over the period 2023-2026. The draft report is published alongside this document.
- 8.15 CEPA/Taylor Airey began its assessment by estimating an efficient baseline level of Opex in 2022, using a category-by-category assessment. CEPA/Taylor Airey rolled forward its forecast of efficient Opex in 2019 to 2022, taking account of the impacts of the Covid-19 pandemic, new activities that Dublin Airport has initiated since 2019, and further efficiencies Dublin Airport has been able to achieve beyond those assumed within the 2019 assessment. In particular, they assessed whether cost savings achieved by the airport in 2020 and 2021 would likely be permanent or transitory.
- 8.16 CEPA/Taylor Airey projected its efficient 2022 baseline forward to 2023-2026 using category specific cost drivers, such as passenger volumes and wage rates, and elasticities, which quantify the responsiveness of costs to a change in a cost driver (usually passenger numbers). CEPA/Taylor Airey refined its 2019 elasticity assumptions to account for the likelihood that costs may be less responsive to changes in cost drivers under substantial increases in demand as passenger volumes recover from the Covid-19 pandemic. Its forecasts assume lower elasticities until passenger volumes recover to 2019 levels. Thereafter, the elasticities derived in its 2019 assessment are applied.
- 8.17 CEPA/Taylor Airey then adjusted the forecasts to account for step changes in Dublin

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<sup>25</sup> In the context of the quicker than anticipated recovery in traffic, our estimated requirement for 2022 is now higher than that of Dublin Airport. While 2022 Opex does not directly impact the review period 2023-2026, it is of relevance for the starting point of our cashflow modelling discussed in Section 12, given that the 2022 price cap will not be changed by this review. For now, we retain the CEPA Opex forecast based on the Dublin Airport traffic forecast, which is close to Dublin Airport's own budget. We will review the most up-to-date data for 2022 before our Final decision, to assess whether 2022 Opex is now likely to be higher than Dublin Airport previously considered. Similar applies to Commercial Revenues for 2022, which we expect may become higher than the 2022 baseline we have initially calculated by the time of our Final Decision. This may offset or outweigh potentially higher Opex in 2022.

Airport's future cost base, e.g. the introduction of new scanning technology, or due to impacts from the airport's Capital Investment Programme (CIP). The Commission's financial model adjusts these forecasts, where necessary, to account for interdependencies with the treatment of the CIP projects; for example, if a project is disallowed, so is the associated Opex, or if a project is set as a trigger, the associated Opex is linked to the trigger amount rather than the baseline forecast. Table 8.2 sets out the CEPA/Taylor Airey forecast of efficient Opex for the period 2022-2026.

**Table 8.2: CEPA Proposed Forecasts by Category including CIP, 2022 -2026 (€ million)**

Category	2022	2023	2024	2025	2026
Security	44.2	43.2	46.9	48.8	50.1
Maintenance (payroll)	15.6	17.5	18.3	18.9	19.4
Maintenance (non-pay)	14.1	16.8	18.9	19.5	20.0
Central Functions	30.1	31.5	32.9	33.8	34.4
Facilities and Cleaning	25.6	27.6	29.2	30.3	30.9
Other Non-Staff Non-Pay	22.9	24.3	25.9	27.1	27.6
Campus Services	19.1	20.1	20.7	21.1	21.4
Retail	16.7	18.9	20.2	22.2	22.6
IT (payroll)	7.1	7.8	8.5	8.9	9.4
IT (non-pay)	10.1	11.1	11.9	12.5	12.8
Rent-Rates	17.5	16.0	15.1	14.2	13.3
PRM/ Car Parks	13.0	14.6	16	17.4	18.2
Utilities	13.0	12.4	12.7	12.0	11.3
Marketing	5.3	5.9	6.3	6.6	7.0
Airside Operations	6.3	6.6	6.8	6.9	7.0
Other Staff Non-Pay	6.4	6.5	6.7	6.9	6.9
Consulting	7.1	7.1	7.1	7.1	7.1
Insurance	5.0	5.5	5.8	5.9	6.0
Capital Projects	3.3	3.4	3.4	3.4	3.3
<b>Total</b>	<b>281.8</b>	<b>296.3</b>	<b>313.0</b>	<b>323.3</b>	<b>329.0</b>

Source: CEPA. Car parking and PRM grouped based on Dublin Airport confidentiality requests.

- 8.18 Table 8.3 provides the corresponding 2022 baseline level and forecast of staff FTEs for the period 2023-2026.

**Table 8.3: CEPA Forecast Required Staffing Levels by Category, 2022 -2026 (FTEs, including CIP)**

Category	2022	2023	2024	2025	2026
Security	895	847	898	921	934
Maintenance	208	228	233	238	241
Central Functions	320	324	329	333	333

Facilities and Cleaning	396	423	442	457	460
Campus Services	228	233	236	237	238
Retail	296	324	336	364	366
IT	62	66	70	72	75
Airside Operations	78	80	80	81	81
Capital Projects	33	33	33	33	33
<b>Total</b>	<b>2,516</b>	<b>2,559</b>	<b>2,656</b>	<b>2,736</b>	<b>2,762</b>

Source: CEPA

- 8.19 Dublin Airport has redacted its own category level forecasts, so we do not provide a line-by-line comparison. In summary, CEPA/Taylor Airey found that the overall level of Opex assumed by the airport in 2022 broadly aligns to its own independent forecast of efficient Opex for 2022, when using Dublin Airport's traffic forecast.
- 8.20 However, there are two main areas where the baseline forecast is lower than Dublin Airport's, which are offset by higher forecasts elsewhere:
- Within facilities and cleaning, facilities costs specifically remain high. This is despite Dublin Airport's facilities functions being rationalised into cross-functional units, as suggested by CEPA/Taylor Airey in 2019, which should allow more flexible operations driven by need and provide a basis for operations to respond more efficiently to passenger growth.
  - Within IT, Dublin Airport has proposed a step-increase in non-pay expenditure but has not clearly articulated the case for the increase.
- 8.21 The difference between Dublin Airport and CEPA/Taylor Airey widens over the determination period. This is driven by two main factors: assumptions related to wage growth and the required increase in the number of FTEs employed at the airport.
- 8.22 Whilst the current high inflation environment is recognised, CEPA/Taylor Airey assesses that Dublin Airport proposes unrealistically high real wage growth forecasts. Relatively high inflation forecast for 2022 and 2023 in particular, puts downward pressure on real wage growth relative to nominal wage growth.
- 8.23 CEPA/Taylor Airey used recent wage forecast data for Ireland from the EU and the Central Bank of Ireland, and has identified an apparent error in Dublin Airport's use of external wage growth forecasts. Over the period 2022 to 2026 inclusive, CEPA assume wages will grow cumulatively by 6% excluding inflation, which translates to 23% including current forecasts of inflation. This drives a difference relative to Dublin Airport's assumptions, which are considerably higher.
- 8.24 CEPA/Taylor Airey's draft forecast for security expenditure is currently significantly uncertain. Several new issues were raised within Dublin Airport's addendum to its regulatory submission, provided in late June, which CEPA/Taylor Airey have not been able to fully assess in the time available. In this addendum, Dublin Airport proposes additional expenditure in security. Although this additional expenditure has been reflected in our draft forecast, CEPA/Taylor Airey are yet to complete its assessment

whether the full quantum of additional spending is necessary and efficient.

- 8.25 As noted above, based on our more up-to-date traffic forecast, we assess that Dublin Airport's original Opex forecast for this year is insufficient. This is supported by operational difficulties experienced by Dublin Airport this year, and the efforts by Dublin Airport to quickly bring in additional staff in areas such as Airport Search Unit (ASU) officers and the temporary deployment of central functions staff to frontline roles. Dublin Airport, like many other airports and aviation stakeholders, is currently facing a challenging situation as it seeks to quickly scale up certain aspects of the operation in response to a recovery in passenger numbers which has been considerably faster than generally predicted even earlier this year. However, in order to maximise the value being provided to current and future passengers, it remains important to implement sustainable and efficient increases in staff numbers and to continue to seek out achievable efficiencies. As observed in 2019, rapid growth in passenger volumes risks an inefficient expansion of staff numbers and cost that is challenging to reverse. It is therefore important that Dublin Airport adopts a prudent approach, taking a long-term view of efficient staffing levels and costs.
- 8.26 The assumptions made by CEPA/Taylor Airey in its draft report will benefit from further stakeholder engagement and scrutiny as part of this consultation. We encourage the provision of further evidence in support of changes to the CEPA/Taylor Airey analysis and assumptions. Evidence will be persuasive if it provides confidence that any additional spending will be matched by an associated improvement in service quality, or on the other hand that lower levels of cost could deliver the required Quality-of-Service. We also welcome any assistance in identifying any potential changes or points of detail which we may have overlooked in the draft forecasts.

### **Submissions and Responses on Operating Costs- General Approach**

- 8.27 IATA recommends that we continue with the approach used in 2019 and carry out a bottom-up assessment of operating costs. It states that a top-down approach may be a useful tool to inform efficiency but there is a lack of consistent data to robustly carry out benchmarking. Aer Lingus and Ryanair agree that a bottom-up efficiency assessment is appropriate. However, ACI believes that this approach using 2020 and 2021 outturns would provide flawed results due to the impacts of COVID-19 on cost lines. It questions the necessity for such a costly and time intensive approach when it is almost always controlled by a top-down estimate. It also states that benchmarking may also provide little understanding due to the variance of operational and physical characteristics, and cost structures across airports. Dublin Airport acknowledges that a top-down approach may ignore firm-specific factors and that a bottom-up assessment could be superior in a normal operating environment, but at present it agrees with ACI that the data since 2020 may lead to skewed results.
- 8.28 ACI rejects the suggestion that a 2022 baseline could be defined based on what Opex would have been in 2022 if Dublin Airport responded to COVID-19 efficiently. It states that this approach is unlikely to be efficient or helpful, and that the financial consequences of the traffic downturn was motivation enough to ensure that costs were efficient. Further, it believes that it should be assumed that costs were efficient during COVID-19, and that it should be expected that they will return to a similar long-run trend as in 2019 when traffic recovers.

- 8.29 Aer Lingus states that it has concerns relating to the efficiency of the airport's response to COVID-19. It argues that we should evaluate this and examine whether this has brought them closer to the efficiency goals set out by CEPA in 2019. It also states that we should examine the current level of outturn Opex compared to the efficient level. Based on this, an efficient level of Opex could be established for each year, and an efficiency frontier challenge included.
- 8.30 Aer Lingus asks for data on the airport's grade structure and wages so that it may ascertain whether the structure is efficient and if the wages are in line with market rates. It states that we should conduct an analysis on this. It also asks to see data on pension scheme contributions, scheme design and security costs.
- 8.31 Ryanair underlines the importance of assessing an efficient level of Opex and applying suitable demand drivers for future Opex. It highlights that the uncertainty involved in this approach represents another reason why it is not the appropriate time to carry out a full building block review.
- 8.32 Dublin Airport states that any future cost base should be defined based on pre-COVID-19 costs, as many of the efficiencies achieved in response to falling passenger numbers were transitory measures and differ from those that would be implemented to reduce costs in the long term.
- 8.33 Dublin Airport believes that the tight timelines of this review will make it challenging to robustly carry out a bottom-up analysis of Opex. It further states that while an analysis of 2020-2022 data may be useful, it is not likely to provide sufficient added value to the analysis as a result of the extended demand shock and recovery. Alternatively, it suggests that the Opex allowances set in 2019 are updated to reflect 2019 outturn passenger numbers and any other known changes to the cost base. It explains that such an approach would be based on the airport's actual cost structure, and a base year that would be considered normal. It points to the similar approach that is being adopted by the CAA for Heathrow.

### *Commission Response*

- 8.34 Having regard to comments made by stakeholders in response to our issues paper, the approach taken by CEPA/Taylor Airey is consistent with the work undertaken in its previous analysis. Detail in relation to each cost area is set out in the CEPA/Taylor Airey report.
- 8.35 It is demonstrably the case that the pandemic resulted in some transitory changes. CEPA has recognised this within its assessment, but it has also identified areas where there have been permanent changes to Dublin Airport's cost base due to events and actions over the period 2020 to 2022.
- 8.36 The bottom up approach has allowed CEPA and Taylor Airey to consider the arguments at a granular level, and thus the 2022 baseline is set on the basis of detailed scrutiny, and has been supported by discussions with the airport about its pandemic response. The forecasts used are pragmatic, particularly in the period over which traffic is expected to recover to 2019 levels. Thereafter CEPA/Taylor Airey revert to the cost drivers and elasticities used in its earlier work.

### *Glidepath*

8.37 Aer Lingus do not believe that implementing a glidepath for the airport to achieve an efficient level of Opex over time is in passengers' interests, but it accepts that when there is a large change required to reach efficient levels it may be required. It expects that if a glidepath is required it will be steeper than in 2019, as Dublin Airport have likely made a large improvement in efficiency in response to COVID-19. IATA is not convinced that a glidepath should be used, as it does not fit with the circumstances a company would face in a competitive market.

### *Commission Response*

8.38 The forecasts are intended to be challenging but achievable. In 2019, the gap between the CEPA/Taylor Airey efficient baseline and Dublin Airport's actual costs was substantial, prompting the Commission to set a glidepath over which the airport could align its costs to the efficient level. This issue does not arise in the 2022 analysis as the overall level of Opex is aligned between the CEPA efficiency analysis and the airport's predicted level of cost. As such, the question of a glidepath for the Opex forecast does not arise.

### *Risk Allocation and the Opex Passthrough Mechanism*

8.39 Aer Lingus states that the continued implementation of an Opex passthrough mechanism is unnecessary and unfair. IATA believes that such a mechanism incentivises the regulated entity to include as many costs as possible through the mechanism, while reducing any incentive to manage them. It states that the use of the mechanism should be kept to a minimum.

8.40 Dublin Airport requests an extension of this mechanism, and suggests that this could include more non-payroll costs that are outside the control of the airport. It states that this approach would reduce the level of risk faced by the airport.

### *Commission Response*

8.41 As outlined in Section 4, we propose to retain the approach to risk allocation set out in the 2019 Determination, which allocates most Opex risk within the review period to Dublin Airport. As an exception to this, we propose to include the passthrough mechanism as established in the 2019 Determination, rather than either revoking it as suggested by Aer Lingus or expanding the scope of it as suggested by Dublin Airport. This would remain limited to cost lines over which Dublin Airport has little control. Thus, it would be limited to the following:

- 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, which exceed €0.5m and relate to activity undertaken by the regulated entity. An example would be a charge levied to cover the costs of the noise regulator (ANCA), the Commission, or the Irish Aviation Authority Safety Regulation Division charges.



- 8.42 Any changes in these cost lines relative to our forecasts (whether higher or lower) would be passed on to airport users directly rather than being absorbed by Dublin Airport.
- 8.43 In a minority of cost lines, we consider that the benefit of de-risking Dublin Airport in relation to it outweighs the risk of damaging the efficiency incentive. Little control in any case which means that there is little benefit in seeking to maintain such an incentive. In particular, there remains significant uncertainty over Dublin Airport's rates bill, potentially up to €0.50 in the price cap. This is currently under appeal and there may be more clarity in relation to the outcome before the Final Decision. In the absence of the mechanism, we would need to include an estimate in relation to which Dublin Airport would bear upside/downside risk. Including the higher estimate for rates might then lead to Airport Charges higher than required, while including the lower estimate might lead to material Opex overspend by Dublin Airport.
- 8.44 We do not consider that the benefit of including other lines of Opex has been sufficiently established, thus we do not propose to expand the mechanism.
- 8.45 As set out in 2019, in order for a relevant cost to be included in full in the passthrough mechanism, Dublin Airport must demonstrate that it took all reasonable measures to achieve the best value for airport users.

### *Voluntary Severance Scheme (VSS)*

- 8.46 Aer Lingus raises concerns that the VSS was overly generous compared to other similar schemes in the industry.
- 8.47 IATA expresses concern that an allowance for the VSS could imply the implementation of a loss recovery mechanism through the backdoor. It further states that any allowances for this should be subject to a strict efficiency assessment.
- 8.48 Ryanair states that passing costs of the VSS through to users would amount to rewarding past inefficiencies. It states that the schemes were implemented to achieve past Opex inefficiencies and passing the costs on to users would be inappropriate.
- 8.49 Dublin Airport disagrees that the full remuneration of the VSS could result in some level of double remuneration, stating that due to COVID-19 it has been earning a fraction of allowed revenues in 2020-2022. It further states that the Commission's thoughts on remuneration in the 2019 Determination were related to a scheme designed to cut wage costs which would have long term benefits, while the scheme that was implemented was designed to enable the airport to reduce costs during the pandemic. Therefore, it states that we should consider a different treatment. Due to the impact of COVID-19 on its business, it believes that full recovery of the VSS should be allowed.

### *Commission Response*

- 8.50 In the 2019 Determination, we set out how we would account for the VSS that was planned at that time, to ensure that Dublin Airport is appropriately remunerated even if that remuneration needed to continue beyond one regulatory period. This was to

avoid Dublin Airport being disincentivised from undertaking it. We stated that, in the subsequent Determination, if VSS costs (including a return on the VSS investment) had not been fully offset by payroll savings, any outstanding amount would be rolled forward into the next Determination. We also stated that all remuneration should be completed by the end of 2027. Thus, the VSS would be treated akin to an allowed project over its payback period subject to this not being longer than seven years, at the end of which it would be fully amortised.

8.51 We considered the following approaches to remuneration of the broader VSS which was then implemented in 2020, as outlined in our 2022 Issues Paper:

- Remunerate the VSS directly over a given time period. This approach would transfer some volume risk away from Dublin Airport. The airport has benefitted from savings over 2020-2022, and therefore, adding remuneration of the full costs of the scheme would result in some level of double counting, given the allocation of risk in the regulatory model. This approach may or may not include an ex-post efficiency assessment of the VSS terms, to assess whether it should be remunerated in full or in part.
- Adopt the approach laid out in the 2019 Determination. That is, we would assess the savings achieved by 2023 due to the VSS investment. If these are less than the cost, we would allow the remuneration of the remainder over a defined period. Remuneration would ensure Dublin Airport is NPV neutral, relative to the counterfactual of not implementing the VSS. Similar to the first option, this might include an efficiency assessment.
- Our third option is to not explicitly remunerate the VSS. Dublin Airport was assigned the volume risk for 2020-2022, except where stated otherwise. This means that Dublin Airport is expected to respond to traffic levels by making changes to its cost base. The implementation of the VSS was an element of its response to COVID-19. Ex-post adjustments for outturn costs are not normally made unless explicitly provided for on an ex-ante basis.

8.52 We continue to consider that the second option is appropriate. However, in response to our request for the details on the scheme, Dublin Airport stated that the payback period for the VSS will have already concluded by 2023. Thus, the VSS has already covered its own costs through savings to Dublin Airport over 2020-2022. This means that the second option would align with the third in entailing no ongoing VSS remuneration for 2023-2026.

8.53 As noted above in Section 6, the risk that Opex or passenger number outturns deviate from forecasts within the period is generally assigned to Dublin Airport. We agree with Dublin Airport that it has earned only a relatively small proportion of the forecast revenues in 2020 and 2021, as we did not fully reallocate volume risk. For 2022 however, capital and operating costs are lower than the 2019 Determination assumed, while the Capex clawback mechanism remains suspended, and passenger numbers are now expected to exceed 25m. Thus, whether or not Dublin Airport will outperform the 2022 regulatory settlement overall is not yet clear.

8.54 We do not propose to use the VSS as an explicit further loss recovery or mitigation

mechanism, as this would go beyond the actions we already took in relation to 2020 and 2021. Therefore, the extent to which Dublin Airport will not have earned the forecast return over 2020-2022 is a separate question from the extent to which remuneration of the VSS has occurred over 2020-2022. Dublin Airport, based on its own analysis, will have made savings from the VSS equivalent to the cost it incurred in relation to the scheme by 2023. On that basis, the VSS will already have been remunerated by 2023 and there is no further required remuneration to include for 2023 and beyond.

- 8.55 This is consistent with the approach we set out for the remuneration of a VSS in 2019. That treatment was not specific to the purpose of the VSS; we do not see why the specific purpose of the VSS should lead to a different treatment. It is also consistent with the approach to 'Restructuring Costs' for ANSPs, as set out in the Single European Sky performance and charging regulations.<sup>26</sup>
- 8.56 On that basis, the concerns raised by the airlines that the scheme was overly generous or aggressive are not relevant.

### *Sustainability*

- 8.57 Dublin Airport highlights that there is likely to be an increase in the required spend on sustainability in order to meet its commitments in this area. It states that this will be driven by a demand for effective sustainability data, digitisation, analytics and insights, specialist advisory services, skilled staff, and effective process development support. In order to accelerate the carbon reduction strategy, it will also require detailed carbon impact reporting, a reduction in carbon impact and minimisation of future cost of carbon.
- 8.58 Ryanair state that efficiency considerations should also apply to all costs related to sustainability and the environment.

### *Commission Response*

- 8.59 We agree that efficiency considerations should continue to apply to additional costs related to sustainability and the environment. In its report, CEPA/Taylor Airey has reviewed Dublin Airport's sustainability related spending proposals and considered their efficiency. We welcome any submissions in response to the specifics of the analysis on this point.

### *Opex Rolling Scheme*

- 8.60 Aer Lingus has suggested the introduction of an Opex scheme, similar to the scheme in place for Commercial Revenues. This would allow Dublin Airport to retain efficiencies gained above the target for a longer period.

### *Commission Response*

- 8.61 We do not propose to re-introduce Opex rolling schemes, which were introduced in

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<sup>26</sup> As defined under Article 2:  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0317&from=EN>

the 2014 Determination and dropped in 2019. As outlined in the 2019 Determination, we believe that Opex rolling schemes add unnecessary complexity to the regulatory model, without providing significant added value. There is no evidence that the rolling scheme was effective in fulfilling its intended purpose. Furthermore, there is no evidence that the intended purpose of the scheme addresses a previously identified issue.

### *Opex and Quality of Service*

8.62 Dublin Airport highlights that the service standards at the airport, in particular security, are dependent on receiving the appropriate funding through the Opex allowance.

### *Commission Response*

8.63 While the Opex forecasts do not specifically constrain Dublin Airport's actual expenditure as noted above, we agree that the regulatory settlement should be internally consistent in that the Opex targets should be sufficient to meet service quality expectations. For example, in the 2019 Determination, the security staffing projections were set assuming an average security queue length of 10 minutes. We recognised that planning for a 10-minute security queue will not always translate into a 10-minute queue in reality, due to on-the-day factors such as actual show-up profiles or sickness absence in excess of forecast, thus we provide for some buffer relative to the applicable service quality targets. CEPA and Taylor Airey, in their most recent assessment, have maintained this 10-minute assumption and have also considered service quality in the setting of allowances for other key operational functions such as cleaning and maintenance.

8.64 As set out in Section 13, the QoS system proposed for re-introduction from 2023 remains broadly in line with that which was set out in the 2019 Final Determination. Thus, in broad terms, from 2023 we are expecting Dublin Airport to return to a level of service in line with that which was provided in 2019, which is consistent with our Opex forecasts.

## 9. Commercial Revenues

### Summary

Table 9.1: Commercial Revenue Target

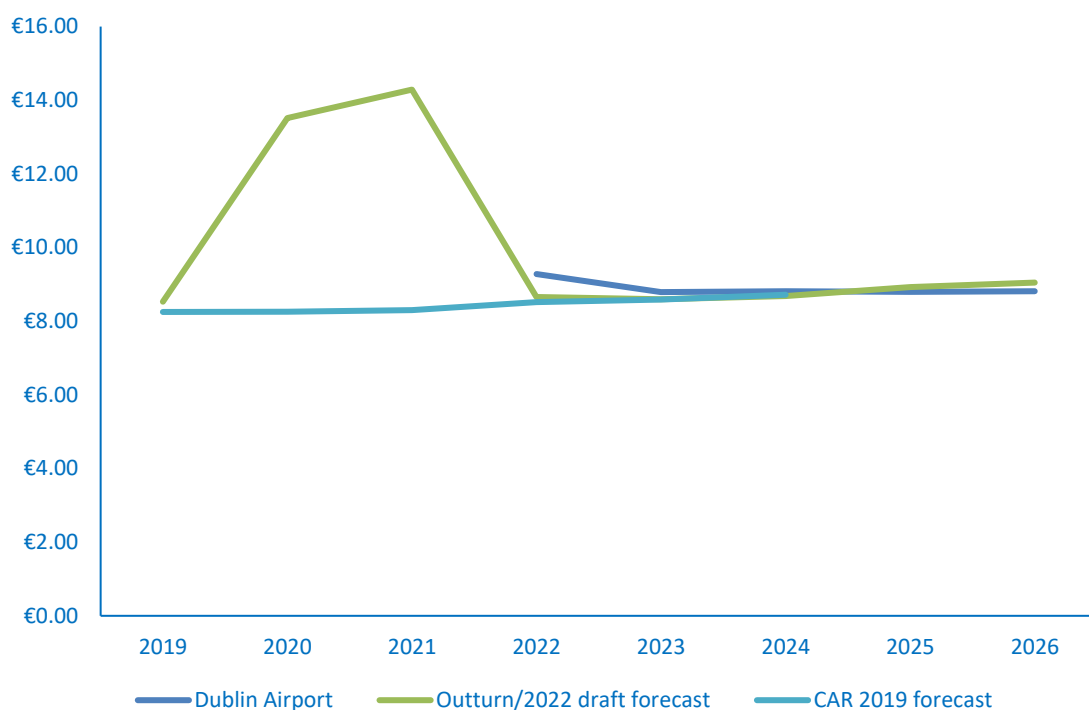
	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
<b>Commercial Revenue Outturn / Target, (€m)</b>	<b>280.7</b>	<b>99.9</b>	<b>120.9</b>	<b>218.9</b>	<b>259.0</b>	<b>280.2</b>	<b>305.0</b>	<b>318.8</b>
Year-on-Year		-64.4%	21%	81.1%	18.3%	8.2%	8.9%	4.5%
<b>Per passenger, (€)</b>	<b>8.53</b>	<b>13.51</b>	<b>14.29</b>	<b>8.66</b>	<b>8.60</b>	<b>8.68</b>	<b>8.93</b>	<b>9.05</b>
Year-on-Year		58.4%	5.7%	-39.4%	-0.6%	0.9%	2.9%	1.4%

Source: Dublin Airport, CAR calculations. As noted above in relation to Opex, the 2022 forecast is relevant only for the net debt position for this review. This will be updated based on outturns before the Final Decision.

- 9.1 Our proposed target for Dublin Airport’s Commercial Revenues is €259m in 2023, increasing to €319m by 2026. This compares to the 2019 outturn of €280.7m. At a per passenger level, we expect this to rise from €8.60 in 2023 to €9.05 in 2026, compared to the 2019 per passenger figure of €8.53.
- 9.2 The forecasts are compared to 2019, rather than recent years, due to the impact of the Covid-19 pandemic on Commercial Revenue in 2020 and 2021, where revenues dropped by 64% and 57% respectively compared to 2019. The largest revenue decreases were in net retail (which fell by €83.6m or 75% in 2020), and car parking (which dropped by €40m or 74% in 2020). On the other hand, categories less driven by passenger numbers, such as commercial property, stayed close to 2019 levels.
- 9.3 Within the period, Dublin Airport is incentivised to exceed this target, as any revenues above this level are retained by Dublin Airport. We propose to reintroduce the rolling schemes for the next period after they were suspended between 2020 and 2022 in response to the Covid-19 pandemic. The schemes incentivise Dublin Airport to act commercially throughout the 2023-2026 period rather than postpone revenue generating initiatives, such as new retailing outlets or carparks, to the start of the next period.
- 9.4 Over 2023-2026, the airport is proposing to deliver various commercial and capacity projects that will add extra capacity and improve the quality of the commercial offer. These improvements should allow the airport to grow Commercial Revenues in line with our targets during the next regulatory period. Ideally, Commercial Revenues provide a twin benefit; improved offerings for passengers as Dublin Airport seeks to improve its performance in areas such as retail and F&B, and also lower airport charges, all else equal, which in turn benefits passengers.
- 9.5 From 2023 to 2026, our per passenger target is close on average, to that proposed by Dublin Airport (being just €0.03 higher). Our revenue profiles are different however, as we expect that for major categories such as retail and car parking, yields per passenger will return to the 2019 levels by 2023, lower than the levels observed over 2020-2022. We then expect per passenger revenue to increase in real terms across the period as new carparks and new retail stores are delivered. Dublin Airport expects

Commercial Revenue to stay approximately flat in real terms over 2023-2026. In total, we expect Commercial Revenues to be €1,162.9m for the 4 years compared to Dublin Airport's forecast of €1,099m. This difference is largely due to our higher traffic forecasts for the period.

**Chart 9.1: Commercial Revenue Per Passenger Comparison**



Source: CAR, Dublin Airport

9.6 Chart 9.1 above compares our Commercial Revenue per passenger forecasts to the forecast outlined in the 2019 Determination, and the forecast proposed by Dublin Airport's in its regulatory proposition. Dublin Airport expects higher per passenger spending in 2023 and 2024 than the Commission, though lower for 2025 and 2026. This is due to its expectation that revenues will remain largely flat at a per passenger level, across the period. Both the Commission's and Dublin Airport's forecasts are higher than 2019. There are several key reasons for this:

- 1) 2019 total outturns were significantly higher than we forecast in 2019.
- 2) Duty free shopping for UK bound travellers has been reintroduced, leading to higher retail spending per passenger
- 3) Passenger forecasts are now lower than previously projected, which means that categories not driven by passenger numbers (i.e., Property Rents) are now higher at a per passenger level.

### Approach to setting Commercial Revenue Targets

9.7 Our overall target is an aggregate of forecasts in eight categories of Commercial Revenue. We use econometric modelling to establish the relationship between each category and a key driver. We implement this methodology in four steps. First, we use

outturn data from 2001 to 2019 to estimate the elasticity of each category with respect to associated drivers. The elasticity measures how the category of revenue varies due to changes in the specific driver. Second, we select the most appropriate driver based on the robustness of the results. Third, we construct a base to project from by taking the 2019 outturn per passenger for each category and multiplying it by our 2023 passenger forecast.<sup>27</sup> Fourth, we use the base, the estimated elasticity, and forecasts of the selected driver to arrive at the target for each revenue category.

- 9.8 We have constructed a 2023 starting point and projected from there (rather than using 2022 as a baseline) as we expect revenue and passenger growth to be more stable from this point. We expect there to be lingering COVID-19 impacts on passenger behaviour and market dynamics in 2022, which are likely to lead to higher yields per passenger in areas such as retail and car parking. We do not expect this to continue into 2023. Thus, in overall terms, we expect Commercial Revenues per passenger to return to 2019 in real terms by 2023. From this point, we apply our elasticity and any relevant CIP related adjustments.

**Table 9.2: Summary of Elasticities and 2019 Baseline**

Category	2019 Revenue		Drivers	2019 Elasticity	2022 Elasticity
	(€m)	%			
Retail	116.2	41.4	Total Passengers + CIP uplifts	1.1	1.3
Car parking	56.6	20.2		1.0	1.0
Commercial concessions	32.6	11.6		0.7	0.8
Commercial property	30.7	10.9	Irish GDP – CIP displacement	1.0	1.0
Advertising	6.1	2.2	Total Passengers + CIP uplift	0.7	0.8
Lounges, fast track and platinum services	18.3	6.5		1.0	1.0
US Preclearance	15.9	5.6	US Departing Passengers	1.0	1.0
Other	4.2	1.5	Total Passengers	0.0	0.0
<b>Total Revenues</b>	<b>280.7</b>				

Source: CAR

- 9.9 Table 9.2 summarises the selected drivers and elasticity for each category. For commercial property we use Irish GDP as the driver, though accounting for some lost revenue from CIP related demolitions. For US Preclearance revenue, we use our forecast of US Preclearance passengers at Dublin Airport. For the remaining six categories we use our forecast of total passengers at Dublin Airport, as well as uplifts for revenue producing CIP projects. We also subtract revenue associated with the displacement of certain commercial property due to the planned developments in the north and south aprons.
- 9.10 The elasticities calculated in 2022 are slightly different to those calculated in 2019, despite the same methodology being used. This is due to two additional years of data being used (2018 and 2019). The biggest difference is in Retail, which has seen an increase of 0.2. The chosen elasticity models have undergone statistical testing to ensure we are using the optimum models. For more information on these tests, see

<sup>27</sup> Except for Commercial Property and 'Other'

## Appendix 1.

**Direct Retail, Retail Concessions and Food & Beverage****Table 9.3: Retail Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Retail Revenue Outturn / Target, (€m)	116.2	28.9	46.1	89.3	109.9	120.3	135.7	141.3
Per passenger, (€)	3.53	3.91	5.45	3.53	3.65	3.73	3.97	4.01

Source: CAR

- 9.11 We propose that the retail revenue target (net of cost of sales) will increase from €109.9m in 2023 to €141.3m in 2026. Retail remains the largest category of Commercial Revenue. In 2019, it generated €116.2m in revenue, representing 41% of 2019 total Commercial Revenues. This figure is expected to be 42% in 2023. Retail is composed of direct retail, retail concessions and food and beverage revenues. Dublin Airport expects retail per passenger to stay broadly flat in real terms across the period, whereas we expect an upward trajectory, with per passenger revenue rising from €3.65 in 2023 to €4.01 in 2026. We consider this to be consistent with the planned delivery of retail generating projects over the period. As in 2019, we do not include specific uplifts for more centralised capacity projects such as the IDL (departures concourse), as we consider that some additional retailing space is likely to be required to maintain historic elasticities in the context of higher passenger numbers.
- 9.12 We estimate a passenger elasticity of 1.34 by regressing annual retail revenue from 2001 to 2019 on passenger numbers. The elasticity indicates that proportionate growth in retail will exceed growth in passenger numbers. The elasticity calculated for this decision is higher than our 2019 Determination estimate of 1.1.
- 9.13 It is intuitive that retail should grow slightly faster than passenger numbers as it depends not only on the number of passengers but also on the level of disposable income of those passengers. Therefore, our estimated elasticity of 1.34 reflects two effects that increase revenue: 1) higher GDP results in more passengers, and 2) those passengers will have higher disposable income due to the higher GDP. The reverse also holds. Thus, we consider this to be a reasonable target for Dublin Airport, with both upside and downside potential.
- 9.14 The commercial investments in the CIP contain several projects specific to this category of revenue. Similar to 2019, we have included uplifts for many of them. These are: Marketing Installation, Retail Refurbishment, New T2 Kitchen, and new F&B projects. Consistent with the 2019 approach, we add uplifts for these projects. We believe that some of the revised uplift estimates are potentially conservative, however, in the context of the updated and relatively high elasticity, we have not adjusted these further.
- 9.15 We have, however, included an uplift to account for increased duty-free spending by travellers to the UK Post-Brexit.



## Car Parking

**Table 9.4: Car Parking Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Car Parking Revenue Outturn / Target, (€m)	56.6	14.6	21.4	43.5	51.8	55.5	60.5	64.1
Per passenger, (€)	1.72	1.98	2.53	1.72	1.72	1.72	1.77	1.82

Source: CAR

- 9.16 The target for car parking revenue is proposed to increase from €51.8m in 2023 to €64.1m in 2026. In 2019, car parking revenue was €56.6m, or 20% of total Commercial Revenues. The airport generates this revenue from multi-storey walk-to-terminal car parks (short term) and bus-to-terminal surface car parks (long term) and a smaller amount of other car parking revenue. Other car parking revenue comes from coach, executive and staff parking. We forecast an average car parking revenue per passenger of €1.76 over 2023-2026. We expect it to stay flat for 2023 and 2024, at €1.72, before growing in 2025 and 2026. We consider this to be consistent with the planned delivery of car parking projects towards the end of the period.
- 9.17 Our forecast is based on the yield per passenger reverting to 2019 levels (in real terms) in 2023, as we expect that there will be no long-term change in behaviour because of COVID-19. We expect that car parking yields per passenger in 2022 will be higher, but that this will not be representative of car parking revenues per passenger from 2023 on.
- 9.18 We estimated a passenger elasticity of 1.55 by regressing annual car parking revenue from 2001 to 2019 on passenger numbers. This is slightly higher than the 1.47 initially estimated in 2019. In 2019 we decided not to use the estimated elasticity in the Final Determination. Following the publication of the Draft Determination, Dublin Airport argued that we had not considered the capacity constraints arising from the fact that no planning permission had been obtained for any of the car parking projects.
- 9.19 While we note that the carparks are yield managed and thus capacity constraints are not inconsistent with an elasticity of greater than 1, we changed the passenger revenue elasticity for car parking to more specifically align it with the investment programme, by adjusting the elasticity down from 1.47 to 1.0 while also adding in specific uplifts associated with new car parking projects in the allowed CIP. We propose to take this approach again in this Interim Review and set have set the elasticity to 1.0.
- 9.20 The airport is proposing several CIP projects aimed at increasing car parking capacity, expected to be delivered from 2025 onwards. We add uplifts for these based on the planned delivery dates. As noted in Section 11, we also align the remuneration of the capital costs associated with these projects with the specific delivery timeline.

## Commercial Concessions

**Table 9.5: Commercial Concessions Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Commercial Concessions Outturn / Target, (€m)	32.6	11.3	13.7	25.1	29.8	31.6	33.0	34.6
Per passenger, (€)	0.99	1.53	1.62	0.99	0.99	0.98	0.97	0.98

Source: CAR

- 9.21 We forecast that revenue from commercial concessions will increase from €29.8m in 2023 to €34.6m in 2026. In 2019, commercial concessions revenue was €32.6m, or 12% of total Commercial Revenues. Commercial concessions relate to revenue streams such as car hire, banking, buses and telephony. Concession agreements entitle Dublin Airport to receive a share of revenues from concessionaires when, for example, the revenue grows beyond agreed thresholds.
- 9.22 The revenue from commercial concessions responds to changes in passenger numbers but to a lesser extent than other categories. Due to the existence of concession agreements, the impact of passengers on commercial concessions is slightly lagged. For example, between 2019 and 2020, while passenger levels dropped by 76%, revenue from commercial concessions only dropped by 64%.
- 9.23 We estimate a passenger elasticity of 0.8 by regressing annual revenue from 2001 to 2019 on passenger numbers. The elasticity indicates that proportionate growth in will be slightly lower than the growth in passenger numbers. The elasticity calculated for this draft decision is higher than our 2019 estimate of 0.7.
- 9.24 The CIP includes a proposal to expand the existing car hire facilities at Dublin Airport. In 2019 we identified that no investment had been made in car rental facilities since 2007 and that capacity constraints would shortly begin to occur across most facilities. Dublin Airport now expects this capacity constraint to occur in 2026, at which time the project will be delivered. As this project facilitates future growth that may otherwise not have occurred, we have added an additional uplift for this project. This aligns with the approach we took in 2019.

## Commercial Property

**Table 9.6: Commercial Property Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Commercial Property Outturn / Target, (€m)	30.7	30.4	26.8	26.4	26.7	27.0	26.6	27.6
Per passenger, (€)	0.93	4.11	3.17	1.04	0.89	0.84	0.78	0.78

Source: CAR

- 9.25 We forecast that commercial property revenue will increase from €26.7m in 2023 to €27.6m in 2026. In 2019, commercial property generated €31m or 11% of total Commercial Revenue. Commercial property comprises income from the rental of office

buildings, hangars, terminal office space and check-in desks.

- 9.26 Revenue from commercial property is correlated with Irish GDP. For this reason, we estimate a GDP elasticity, rather than a passenger elasticity. Our estimated GDP elasticity is 1.0. This was estimated using annual data from 2001 to 2019. In 2019, our estimated passenger elasticity was also 1.0.
- 9.27 Dublin Airport is proposing three investments that will contribute to maintain and increase commercial property revenues. We propose to allow for two of them. For internal consistency, of these two, we have not included an uplift for the OCTB refurb project as we understand that this project is linked to potential rent increases payable by the Regulated Entity to daa group, which has not been included by CEPA in their Opex forecast either.
- 9.28 As in 2019, Dublin Airport has highlighted that capacity investments in the north and south aprons will reduce revenue from commercial property due to properties being displaced. This has been accounted for in our forecasts.
- 9.29 As a cross-check, we also simultaneously estimated passenger and Irish GDP elasticities. In this case, the passenger elasticity was 0.16 and not statistically significant, while the GDP elasticity was 1.17. These results support our conclusions that commercial property revenue is likely to be related to GDP rather than passenger numbers.

### *Cap on Access to Installation (ATI) Fees*

- 9.30 ATI Fee caps are not additional to the Commercial Property forecasts, but instead are contained within them. These fees relate to charges that the Airport levies ground handlers to access installations needed to provide ground handling services. Since 2009 we have set ATI fee caps in order to address concerns from users about the danger of ‘double counting’ if the Airport increases ATI fees or introduces a new ATI fee after a price cap has been set. We propose to set a cap on Access to Installation fees based on our 2023-2026 revenue forecast provided which is shown in Table 9.7. The ATI fees per passenger are slightly higher across the period than in 2019 as baggage hall desk revenue and Common Use Passenger Processing Systems (CUPPS) revenue are expected to increase in line with passenger growth. The portion of ATI fees that changes depending on passenger levels is a large part of the reason ATI revenue declined so significantly during the pandemic.

**Table 9.7: ATI Fees**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
ATI Outturn / Target, (€m)	3.5	2.6	2.2	3.2	3.9	4.3	4.7	4.8
Per passenger, (€)	0.11	0.35	0.26	0.13	0.13	0.13	0.14	0.14

Source: CAR

## Lounges, Fast Track and Platinum Services

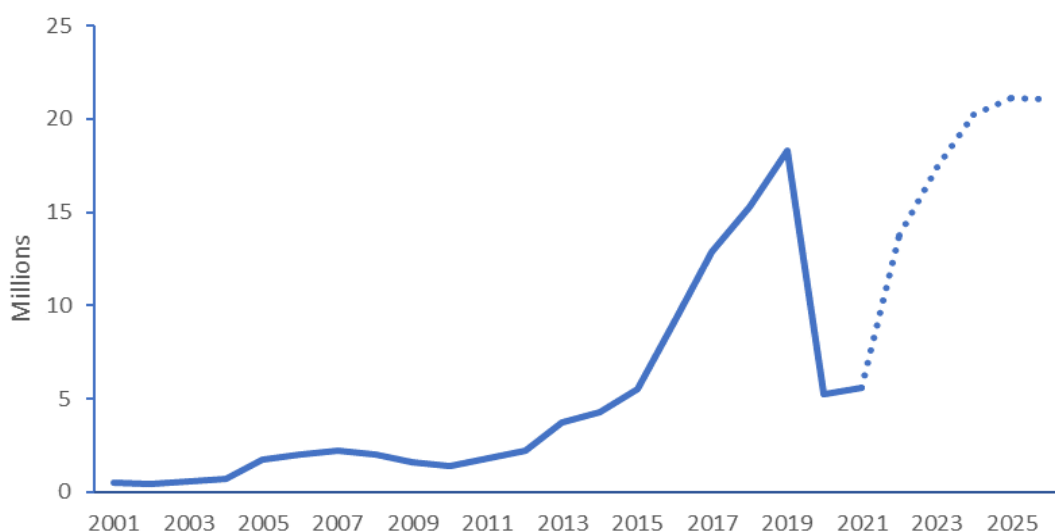
**Table 9.8: Lounges, Fast Track and Platinum Services Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
DATS Revenue Outturn / Target, (€m)	18.3	5.2	5.6	14.1	17.4	20.0	21.4	22.3
Per passenger, (€)	0.56	0.71	0.66	0.56	0.58	0.62	0.63	0.63

Source: CAR

- 9.31 We propose a revenue target for lounges, fast track and platinum services (DATS) which will increase from €17.4m in 2023 to €22.3m in 2026. In 2019, this category generated €18.3m which is 7% of total Commercial Revenue. This target is estimated from a combination of using a passenger elasticity of 1.0 and by including uplifts for CIP projects in this category. We forecast an average DATS revenue per passenger of €0.61 over 2023-2026. We expect an upward trajectory across the period, with per person revenue rising from €0.58 in 2023 to €0.63 in 2026. We consider this to be consistent with the planned delivery of DATS-enhancing commercial projects over the period.
- 9.32 Our econometrics analysis resulted in elasticities we consider to be unrealistically high; a passenger elasticity of 2.53. Elasticities are high because revenues were largely flat until 2014 but grew significantly between 2015 and 2019, an average annual increase of 35%. The growth in this category revenues is show in Chart 9.2. In 2019, we similarly estimated a passenger elasticity of 2.73, however, we considered this elasticity to be unrealistic and instead used a passenger elasticity of 1.0 and uplifted the base forecast for CIP projects in this area. We have once again used a passenger elasticity of 1.0 and uplifted the base forecast for the three CIP projects in this area.

**Chart 9.2: Outturn and Target Revenue of Lounges, Fast Track and Platinum Services**



Source: CAR

## US Preclearance

**Table 9.9: US Preclearance Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Preclearance Revenue Outturn / Target, (€m)	15.9	2.4	1.8	12.2	14.5	15.9	17.4	18.2
Per passenger, (€)	0.48	0.32	0.21	0.48	0.48	0.49	0.51	0.52

Source: CAR

- 9.33 We forecast that revenue from US Preclearance services will increase from €14.5m in 2023 to €18.2m in 2026. In 2019, the revenue from US Preclearance was €15.9m or 6% of total Commercial Revenues. We forecast this revenue category by first calculating a 2023 baseline by multiplying the 2019 per passenger outturn by our 2023 passenger forecast and then projecting forward using our forecast growth in US departing passengers, and an elasticity of 1. This implies that the US Preclearance charge would stay at the 2019 level in real prices. As set out in Section 7, we have derived our US passenger forecast from both an analysis of previous US passenger growth compared to overall passenger growth, and evidence of airline capacity plans.
- 9.34 As in 2019, we did not obtain statistically significant results for passenger and GDP elasticities and concluded that the above estimation technique was a superior approach for this category.

### Regulatory treatment of the charge

- 9.35 In the 2022 Issues Paper, we requested stakeholders' views on appropriate regulatory treatment of the US Preclearance charge. While there was some support among stakeholders for the reclassification of the charge from a Commercial Revenue to an Airport charge, we propose to maintain US Preclearance as a commercial activity. We do not consider that we have been provided with persuasive evidence that we should change our approach and consider it an Airport Charge as under the Airport Charges Directive.<sup>28</sup> This is consistent with our approach in the original 2019 Determination.

## Advertising

**Table 9.10: Advertising Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Advertising Revenue Outturn / Target, (€m)	6.1	2.7	1.6	4.7	5.1	5.8	6.2	6.3
Per passenger, (€)	0.19	0.37	0.19	0.19	0.17	0.18	0.18	0.18

Source: CAR

- 9.36 We forecast that advertising revenue will increase from €5.1m in 2023 to €6.3m in 2026. In 2019, advertising generated €6.1m, or 2% of Commercial Revenue. Advertising includes income from both interior and exterior advertising at Dublin Airport. Most of the advertising is billboard format. Since 2016, Dublin Airport also

<sup>28</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009L0012>

generates advertising revenue from digital advertising pods.

- 9.37 We use the passenger elasticity of 0.8, which we estimated using annual data from 2001 to 2019.
- 9.38 There is a CIP project to expand the provision of digital advertising products in the airport. We have included an uplift for this project in our forecast. In addition to this and based on information provided by Dublin Airport in relation to the revaluation of an advertising deal, we propose to reduce the target by €0.75m per year from 2023. We expect to confirm this revaluation ahead of the Final Decision.

## Other Commercial Revenue

**Table 9.11: Other Commercial Revenue Target**

	2019	2020	2021	2022f	2023f	2024f	2025f	2026f
Other Revenue Outturn / Target, (€m)	4.2	4.4	3.8	3.6	3.8	4.0	4.2	4.2
Per passenger, (€)	0.13	0.59	0.45	0.14	0.13	0.12	0.12	0.12

Source: CAR

- 9.39 We forecast that the ‘Other Commercial Revenue’ target will remain largely constant at an average of €4.1m per year between 2023 and 2026. This is based on information provided by Dublin Airport. We use Dublin Airport’s forecast for this category. In 2019, other revenue was €4.2m or approximately 2% of total Commercial Revenue. We use a passenger elasticity of zero because historical data does not show any significant trends or correlations. Historically this revenue category has remained, on average, close to a €4m level.
- 9.40 We expect that some of the new Sustainability Capex projects will provide Commercial Revenue benefits. For example, the Airport Charging project will provide for electric vehicle charging points across the campus. We expect that most of this will likely not materialise until near the end of the current period or, to a greater extent, the subsequent period. We therefore have not proposed any specific revenue uplifts for the Sustainability related projects in the Draft Decision. We will, however, finalise this position in conjunction with finalising our capital costs treatment in the Final Decision.

## Rolling Schemes

### Rolling Schemes 2015-2019

- 9.41 In the 2014 Determination, we introduced rolling schemes for Commercial Revenues, having used them for operating costs since 2009. Rolling schemes were composed of both per passenger targets and a gross target. Per passenger targets were set for areas that vary with passenger numbers such as retail, car parking, advertising and other revenue. The schemes were suspended for 2020-2022 in response to the Covid-19 pandemic, as the pandemic was expected to (and did) lead to an unexpectedly high level of volatility in performance relative to the targets set in the 2019 Determination.

## Rolling Schemes 2023-2026

- 9.42 The continued usefulness of rolling schemes was questioned during the 2019 Determination, but the schemes were ultimately deemed to have incentivised Dublin Airport to act commercially across the 2014-2019 period rather than postpone revenue generating initiatives to 2020. We consider that unbalanced incentives across the period could lead to decision making which is ultimately sub-optimal for all stakeholders.
- 9.43 We therefore include rolling scheme incentives for 2023-2026 for four categories which we consider are most likely to be at risk of such an outcome. These are the same categories as the 2019 Determination, namely Retail, Car Parking, Lounges/FastTrack/Platinum Services, and Advertising. We propose that, in any one year and for each category, the total outperformance subject to carry-forward would be capped at 10% of the target, due to relative uncertainty over the scope for significantly outperforming these targets. For example, if our assumption that carparking yields per passenger revert to 2019 levels does not materialise, this could have a disproportionate impact on the interests of future users, relative to the benefit of the rolling scheme.

**Table 9.12: Per Passenger Commercial Revenue Targets for Rolling Schemes**

Revenue Category, €	2024	2025
Retail Revenue	3.73	3.97
Car Parking Revenue	1.72	1.77
Lounges, FastTrack & Platinum Services	0.62	0.63
Advertising	0.18	0.18

Source: CAR

## Response to the Issues Paper

### Estimation Methodology of Commercial Revenues

- 9.44 Aer Lingus is broadly supportive of the econometric approach to Commercial Revenue forecasting. However, it does not believe its use in the 2022 Interim Review is wholly appropriate. It instead proposes that CAR multiply recent spend per passenger by forecast traffic volumes for the first two years of the control, and then using the econometric model for the final two years.
- 9.45 IATA notes that it may be useful to complement the econometric approach to Commercial Revenue forecasting with a bottom-up assessment. It argues that relying solely on an econometric approach means that the elasticities will be based on Dublin Airport's past performance which in turn implies that the airport has previously been efficient in generating Commercial Revenues.
- 9.46 Ryanair believes that Dublin Airport's Commercial Revenues will likely be higher than previously estimated. It believes that the Commission's elasticity driven approach to retail revenues in 2019 failed to account for the re-introduction of duty- and tax-free allowances for UK bound passengers who have historically accounted for over 30% of passengers using Dublin Airport. It also believes that private car use to access the Airport will remain high post-pandemic, potentially leading to a significant increase in

- car parking revenues. Finally, it also expects to see allowances made for new lines of Commercial Revenues arising from new initiatives, e.g., forecourt charging, solar farms etc.
- 9.47 Dublin Airport believes that the Commission needs to take account of the devastating impact of lower passenger volumes on Commercial Revenues; the impact of changes in the passenger profile on certain revenue streams; changing consumer patterns following the COVID-19 pandemic; and the pathway to recovery for its commercial businesses.
- 9.48 Dublin Airport notes that its Commercial Revenues in 2020 and 2021 did not decline to the same extent as passenger numbers across almost all categories. Additionally, average Commercial Revenue per passenger increased in 2020 and 2021 due to a number of factors. Dublin Airport claim that this was due in part to the fact that a significant proportion of Commercial Revenues are not passenger related and so did not fall to the same extent, and to the fact that both passenger mix and passenger preferences changed temporarily during the pandemic. For example, during the pandemic the airport saw a higher proportion of Irish originating passengers, higher private car use, and a greater use of Fast Track.
- 9.49 Dublin Airport believes that there are three broad approaches which the Commission could take in the 2022 Review: a bottom-up review, a top-down assessment, or a review and adaption of the 2019 assessment. Due to the impacts of the pandemic on Commercial Revenues and passenger behaviour, Dublin Airport would prefer that any assessment of the airports revenues not be based on 2020 and 2021, lest the projections be skewed by unusual and temporary passenger behaviour.
- 9.50 While Dublin Airport considers that a bottom-up assessment would provide the most comprehensive analysis, it understands that there are time constraints associated with this review. It sees merit in using some form of top-down benchmarking as a sense check on the Commercial Revenue analysis and as an indication of the comparative performance of its commercial business against its peer airports. Dublin Airport's preferred approach, however, would be for the Commission to perform an update on its 2019 assessment and use this as the basis for an updated 2022 review.
- 9.51 In its 2019 Determination, the Commission established Commercial Revenue per passenger targets based on long run historic trends and taking account of relevant factors such capacity constraints and additional CIP investment. It believes the Commission should take 2019 as a starting point, while reflecting the changing dynamics in the commercial businesses since 2019 and adjusting for passenger forecasts over the period 2023-2026.
- 9.52 Dublin Airport disagrees with the Commission's proposal to use 2022 data to construct a base year for the 2023-2026 forecast given to the level of distortion that remains at a per passenger level. It proposes that the Commission instead use 2019 as the baseline year while modifying this for market changes since 2019 that are expected to continue and prorating for 2023-2026 forecast passenger volumes.



### *Commission Response*

9.53 Our overall approach to setting Commercial Revenue targets was to use an aggregate of forecasts in eight categories of Commercial Revenue and has incorporated many stakeholder views. This involved using econometric modelling to establish the relationship between each category and a key driver, and then using this information to project forward from a 2023 base, before then applying uplifts/downlifts and the impact of duty frees reintroduction. This approach also incorporates a bottom-up assessment of many of Commercial Revenue categories, which involved assessing commercial investment plans to assess the impact on future revenues.

### *Rolling Incentives*

9.54 Aer Lingus is open in principle to the reintroduction of the Rolling Schemes but wants the Commission to demonstrate that the schemes work in the interests of passengers. It requests that the Commission provide evidence that rolling schemes have previously incentivised additional Commercial Revenues.

9.55 IATA sees no benefit to re-introducing rolling incentives as it fears that the per passenger level volatility seen across the Commercial Revenue categories will make the targets too easy to achieve.

9.56 Regarding rolling schemes, Ryanair states that it has always opposed their use. It does not consider such incentives necessary to encourage Dublin Airport to invest in revenue enhancing activities in later years of any determination as there is still revenue to be earned from any operational improvements and that any Capex expended will remain in the RAB, earning a return over the period. As any shortfall in performance is passed back to users at the end of a regulatory period, it argues that it is perverse that any commercial upside is not treated consistently. It argues that this breaches the principle of symmetry as recommended by the Thessaloniki Forum in its 'Airport charges in times of crisis' February 2022 paper (para. 4.14).

9.57 Dublin Airport supports the reintroduction of rolling schemes as it believes they are an important mechanism for encouraging and incentivising strong commercial performance at Dublin Airport, which is ultimately to the benefit of users as it contributes to lower long-run aeronautical charges.

### *Commission Response*

9.58 Having considered the arguments put forward, we propose not to make any changes to the rolling scheme incentives for 2023-2026. In 2019, we concluded that the rolling schemes have previously incentivised Dublin Airport to act commercially across the determination period, and we have therefore included rolling scheme incentives for the same four categories as in 2019.

9.59 Allowed commercial Capex will remain in the RAB, earning a return over the period. However, we note that without the rolling schemes, there would be an incentive to hold off on the delivery of commercial projects until the start of a new period, to avoid the incremental revenue being added into the forecasts underpinning the regulatory settlement for the maximum possible time. This is distinct from the more general

incentive to deliver allowed Capex such that it is then remunerated through the RAB.

### *Regulatory treatment of new and existing charges*

- 9.60 IATA believes the introduction of set down charges requires careful consideration of the scheme's costs and benefits. While the income would be used to lower aeronautical charges, there would also be costs to managing the scheme increasing the overall costs paid by consumers. It is also concerned about the evolution of such charges across the regulatory period, as it believes the airport will be incentivized to significantly increase the charge, which would not be reflected in the price caps if done within period.
- 9.61 IATA believes there needs to be a cost-based approach to setting US Preclearance charges, rather than a non-aeronautical charge approach which allows revenues to be fully maximized.
- 9.62 Liam O'Grádaigh argues that revenues from set down charges should be accounted for in future revenue forecasts to ensure that passengers are not double charged.
- 9.63 Ryanair is not generally supportive of placing new charges into the regulated category, as charges such as passenger set-down charges are not levied on all users and passengers have a choice. It does note, however, that it may be appropriate for some controls to be placed on such charges akin to the process for approving 'Access to Installations' for the purpose of ground handling, for example, for de-icing charges. It states that it is important that such charges are fully accounted for in a regulatory determination.
- 9.64 Regarding the classification of commercial charges, Dublin Airport strongly supports the Preclearance charge remaining as a commercial charge. It notes that the US preclearance service is only relevant for airlines operating US transatlantic services, and it is also entirely optional for airlines, i.e., airlines can equally choose to post-clear on arrival in the United States. Dublin Airport also notes that it has made a considerable investment in the Preclearance facility, and this was done so on the basis that it would be able to maximise its commercial return from this venture. It argues that this, in turn, benefits airlines and passengers in the form of lower overall airport charges.
- 9.65 It notes that the de-icing charge is a ground-handling charge as defined under section 4.2 of Schedule 1 of S.I. 505 of 1998 and as such this charge forms part of the miscellaneous charges levied by Dublin Airport. It argues that there is no basis for the redefinition of this charge as an aeronautical charge.
- 9.66 It states that the proposed passenger set-down charge is a charge which is being considered for implementation by Dublin Airport. The objective of this charge will be to facilitate a reduction of personal transport to the airport, improve the air quality on departures road and add security barriers to protect the T1 building.
- 9.67 Finally, Dublin airport argues that the basis for the drop off charge is that kerbside access is a scarce commodity and, as such, pricing should be introduced to ration excess demand and avoid kerbside congestion. It further argues that access to the

terminal kerbside is not an essential commodity for passenger air travel. On this basis there is no justification for the inclusion of a passenger setdown charge as an aeronautical charge.

### *Commission Response*

- 9.68 While there was some support among stakeholders for the reclassification of charges from Commercial Revenue to Airport Charges, we do not propose to make any changes to the classification of Airport Charges as part of this Interim Review. We do not consider that we have been provided with sufficiently persuasive evidence to change our approach.
- 9.69 The set down charges relate to the Drop Off-Pick Up project which is discussed in Section 11/Appendix 2. We agree with Liam O’Grádaigh that, if the Drop Off-Pick Up project were to be included in our capital cost allowances, we would need to include an uplift in our Commercial Revenue forecasts. However, we have not allowed for this project so do not include such an uplift.

### **Regulatory till**

- 9.70 ACI consider that in a single till scenario, the consequences of mis-forecasting Commercial Revenues are even greater than in a dual till. It argues that single till is flawed, as while airport users benefit from non-aeronautical revenues earned by the airport through reduced aeronautical charges, the airport users do not take responsibility to cover non-aeronautical charges when they are lower than expected.
- 9.71 ACI proposes that Dublin Airport be allowed use dual till accounting as this can allow for a cross-subsidy between the non-aeronautical till and the aeronautical till. It argues that divergences from forecasts must be symmetrically. It further states that projected Commercial Revenues under the single till building blocks approach must also have a robust mechanism for ensuring that airport users not only benefit from the non-aeronautical revenues, but also assume liability for non-aeronautical costs.

### *Commission Response*

- 9.72 In response to ACI, we would note that there is already a mechanism for ensuring that airport users do not solely benefit from the non-aeronautical revenues being included in the price cap calculations, but also bear risk in relation to this. For example, if a commercial investment is allowed and enters the RAB but ultimately does not deliver the expected level of Commercial Revenues, it remains within the RAB and is remunerated over the asset life, whereas the lower Commercial Revenue benefit is absorbed by airport users at the next building block re-set.
- 9.73 More broadly, we note that we do not intend to reopen the till decision as part of this Interim Review.

### **Comparison with Dublin Airport Forecast**

- 9.74 Dublin Airport used a bottom-up forecasting approach in combination with its own internal judgement. It used 2019 revenue per passenger as its starting point. In some instances, it adjusted its figures to account for external factors impacting future

revenue, as well as expected changes in passenger behaviour. It did not use 2022 as the base year position due to suppressed passenger volumes in Q1 and the anomalies in passenger mix and behaviours. This approach differs from the high-level approach Dublin Airport proposed in its response to the Issues Paper.

**Table 9.13: Comparison between Dublin Airport and CAR Commercial Revenue forecasts**

	2023	2024	2025	2026
CAR Forecast (€m)	259	280.2	305.0	318.8
Per passenger based on CAR PAX forecast (€)	8.60	8.68	8.93	9.05
Dublin Airport Forecast (€m)	243.8	267.2	288.6	299.6
Dublin Airport per passenger forecast (€)	8.79	8.81	8.80	8.81

Source: CAR, Dublin Airport

## 10. Cost of Capital

### Summary

Table 10.1: Pre-tax Weighted Average Cost of Capital (WACC), Real

	2022		2019		Difference
	Range	Estimate	Range	Estimate	
Pre-tax WACC (at BBB+)	3.85% - 4.49%	4.22%	3.40% - 4.99%	4.22%	unchanged
Pre-tax WACC (at BBB)	3.87% - 4.51%	4.24%	3.44% - 5.02%	4.25%	1bps ▼

Source: Swiss Economics

- 10.1 The Cost of Capital is the estimate of the return investors in Dublin Airport require. We estimate the efficient level of the real Cost of Capital for Dublin Airport based on updated data to the end of 2021 to be between 3.85% and 4.49%, with a point estimate of 4.22% (assuming, as in 2019, a notional credit rating at BBB+). This is unchanged to the rate allowed in 2019. The rate generally reflects current empirical evidence, rather than changes in the methodology compared to the original 2019 Determination.
- 10.2 As proposed in the 2022 Issues paper, we commissioned Swiss Economics to update its report on Dublin Airport's efficient pre-tax Cost of Capital from September 2019.
- 10.3 The calculations in the Swiss Economics 2022 draft report are based on data up to 31 December 2021. The data underlying the analysis will be updated again prior to the final report. Due to the current volatility in financial markets, this update may result in changes to certain parameters. However, within a range, it should also be noted that the final pricing outcome for 2023-2026 may be relatively insensitive to changes in the WACC for the Final Determination. All else equal, a higher WACC would be offset by a reduced requirement for pre-funding and/or accelerated depreciation as set out in Section 12, and vice versa. Therefore, changes in the WACC for 2023-2026 may instead be more impactful on capital costs from 2027 and beyond.
- 10.4 Most aspects of the methodology to determine the appropriate rate of return is unchanged compared to the 2019 Determination. Specifically, we estimate the return on capital using a Weighted Average Cost of Capital (WACC). This methodology separately estimates the Cost of Equity and the Cost of Debt and gives them each a weighting using the estimated efficient level of gearing. The Cost of Equity is calculated using the Capital Asset Pricing Model (CAPM). This methodology was used in all previous determinations and is recommended by the Thessaloniki Forum. The Cost of Debt is estimated using Dublin Airport's actual and forecast future debt obligations and a market rate for corporate bonds with comparable risk.
- 10.5 Methodological differences to the original 2019 Determination include an adjustment to the calculation of beta values, which is amended to take the effect of COVID-19 into account, and the calculation of the cost of new debt, which is amended to take the changes regarding the average duration of embedded debt into account.
- 10.6 We observe an increase in the Cost of Equity, primarily driven by an increase in Dublin Airport's asset beta. This is offset by a decrease in the real cost of debt, driven by

increased inflation expectations in the market. Overall, under a notional credit rating for Dublin Airport of BBB+, the real 2022 WACC remains unchanged from the 2019 WACC.

- 10.7 We use a real WACC and update the RAB for inflation, rather than holding the RAB at historical cost and applying a nominal WACC. Thus, with forecasts for higher inflation compared to when the original determination was made in 2019, we expect that the unchanged real WACC will now generate a higher nominal return for Dublin Airport over the period 2023-2026.
- 10.8 A range of sensitivity analyses of the WACC with respect to changes in its various parameters were conducted. Key sensitivity analyses include the following:
- Assuming a BBB notional credit rating for Dublin Airport instead of BBB+. This increases the WACC from 4.22% to 4.24%.
  - Assuming a tax rate of 15% instead of 12.5%. This increases the WACC from 4.22% to 4.27%.
  - Assuming a notional gearing rate of 60% instead of 50%, which results in a WACC of 4.27%, and assuming a notional gearing rate of 40%, resulting in a WACC of 4.17%.
- 10.9 In this section we summarise the methodology and results for each component of the WACC-CAPM model; full details of the analysis are in the Swiss Economics 2022 report published alongside. We also discuss submissions received from stakeholders on cost of capital and issues raised in responses to our Issues Paper.

## WACC Components

Table 10.2: WACC components

	2022		2019		Difference
	Range	Estimate	Range	Estimate	
Gearing	45% - 55%	50%	45% - 55%	50%	-
Tax rate	-	12.50%	-	12.50%	-
Risk Free Rate	-1.59% - -0.54%	-1.07%	-1.12% - -0.10%	-0.61%	46bps ▼
Total Market Return	5.70% - 6.81%	6.25%	5.96% - 6.80%	6.38%	13bps ▼
Equity Risk Premium	6.77% - 7.87%	7.32%	6.57% - 7.41%	6.99%	33bps ▲
Asset Beta	0.52 - 0.59	0.56	0.48 - 0.51	0.50	0.06▲
Equity Beta	0.98 - 1.12	1.05	0.91 - 0.95	0.94	0.11▲
Cost of Equity	5.55% - 7.65%	6.60%	5.33% - 6.46%	5.96%	64bps ▲
Cost of Debt (at BBB+)	-0.31% - 0.11%	-0.10%	0.29% - 0.96%	0.63%	73bps ▼
Aiming up	-	0.50%	-	0.50%	-
Pre-tax WACC	3.85% - 4.49%	4.22%	3.40% - 4.99%	4.22%	-

Source: Swiss Economics

- 10.10 Table 10.2 summarises our ranges for each component and compares them with the

values of the 2019 Determination. The reported 2019 values are based on the Commission's 2019 Final Determination, assuming a notional credit rating for Dublin Airport of BBB+. To arrive at the pre-tax WACC of 4.22%, the midpoint estimates for each component is used and an aiming up allowance of 0.5% is added to the results. As shown in Table 10.2, the Cost of Equity increases compared to the 2019 values. However, its impact on the pre-tax WACC is offset by a decrease in the Cost of Debt.

### Cost of Equity

10.11 We estimate the Cost of Equity to be 6.60%. This is 64 basis points higher than the 5.96% Cost of Equity that we allowed in 2019. The components of the Cost of Equity changed as follows:

- The Risk-Free Rate decreased from -0.61% to -1.07%, a decrease of 46 basis points.
- The Equity Beta increased from 0.94 to 1.05.
- The Equity Risk Premium increased from 6.99% to 7.32%, an increase of 33 basis points.

10.12 We discuss our decision on each component below.

### Risk Free Rate

10.13 We allow a Risk-Free Rate of -1.07%. This value is based on the following observations:

- Historic averages of Irish and German government bond yields suggest a range from approximately -1.89% to -1.03%.
- Forward rates indicate that the market expects an increase in Euro area government bond yields of 29 basis points to 49 basis points over the 2022-2026 period.

10.14 We have not changed the methodology for assessing the level of the Risk-Free Rate compared to the 2019 Determination. Changes in the level of the Risk-Free Rate are exclusively due to updated financial markets data.

10.15 As is the case for all WACC components, the level of the Risk-Free Rate is expressed in real terms. The conversion from nominal to real rates is done using the Fisher Equation.<sup>29</sup>

10.16 The allowed Risk-Free Rate is 46 basis points lower than the Risk-Free Rate allowed in the 2019 Determination. The observed decrease in the Risk-Free Rate is explained through a decrease in real yields of Irish and German government bonds.

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<sup>29</sup> Fisher, Irving (1907). *The Rate of Interest*. Mansfield Centre, CT: Martino Publishing (2009); MacMillan (1907)

## Equity Beta

- 10.17 We use an Equity Beta for Dublin Airport of 1.05.
- 10.18 As for the 2019 Determination, the Equity Beta reflects the impact of the notional gearing level of 50% and tax rate of 12.5% on Dublin Airport's Asset Beta as indicated by the Hamada formula.<sup>30</sup>

## Asset Beta

- 10.19 Underlying the Equity Beta is a point estimate of the Asset Beta of 0.56 with a range of 0.52 to 0.59. The point estimate is higher than the Asset Beta of 0.50 used for the original 2019 Determination.
- 10.20 The methodology for estimating Dublin Airport's Asset Beta is generally in line with the original 2019 Determination. Specifically, it is based on:
- Empirical Asset Beta estimates of nine exchange-listed comparator airports retrieved using regression analysis of stock price movements;
  - Asset Betas from international regulatory precedent (three airports); and
  - Information on comparator airports' regulatory environment, demand structure, and business structure to weight their relevance as a benchmark for Dublin Airport.
- 10.21 Empirical Equity Betas for European airports are derived by regressing stock returns on a European-area stock index (STOXX Europe 600). Equity Betas for non-European airports are derived by regressing stock returns on their respective national stock price indices using ordinary least squares regression.
- 10.22 The empirical Equity Betas are converted into Asset Betas using the Hamada-formula and information on net debt to equity ratios and effective tax rates.
- 10.23 We have made some amendments to the 2019 methodology to correct for the impact of COVID-19 on empirically estimated comparator Betas. These concern predominantly the time horizons over which the Asset Betas are calculated. We exclude all observations of 2020 from the estimation, as 2020 was the year with the largest distortions on the stock market caused by the pandemic. For most airport stocks, co-movements with stock indices normalised by the end of 2020. Thus, we focus on *non-pandemic* Betas.
- 10.24 Specifically, Asset Betas are estimated based on the following data:
- Pre-pandemic (until the end of 2019) 1 year / daily, 2 years / daily, and 5 years / weekly data;
  - Post-pandemic (from the beginning of 2021) 1 year / daily data.

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<sup>30</sup> Hamada, R.S. (1972). The effect of the firm's capital structure on the systematic risk of common stocks. The Journal of Finance, 27(2): 435-452.



10.25 We believe it is appropriate to use *non-pandemic* Betas for the following reasons:

- It is unlikely that future pandemics or events with similar impact on airport traffic will affect airport stocks to the same extent as COVID-19. This is because, internationally, airport regulators and other government bodies have demonstrated that they are determined to intervene and mitigate the consequences for airports when such events occur. At the beginning of COVID-19, there may have been more uncertainty regarding governments' and airport regulators' willingness to intervene. This is evidenced by much less pronounced airport stock reactions during the second COVID-19 wave in 2020 and subsequent waves in 2021 compared to the initial wave in early 2020.
- We expect that shocks to Dublin Airport's passenger numbers due to COVID-19 are likely to be less drastic over the next years than in the past. There may still be occasional travel restrictions and corresponding impediments to traffic, however, worldwide shutdowns of air travel due to COVID-19 seem increasingly unlikely.
- Were such a shock to materialise, we have a flexible mechanism for Interim Reviews, which allows us to respond more swiftly than many other airport regulators. In 2020, we waived the compliance requirement with the ex-ante per passenger price cap. This allowed Dublin Airport to collect €9.94 per passenger (instead of the ex-ante price cap per passenger of €7.19) and resulted in approximately €21m additional aeronautical revenue in 2020, with a total estimated value of €220m across 2020-2026 as described in Section 3. Interventions with this order of magnitude were mostly either implemented at a later stage during the pandemic or omitted altogether by other international airport regulators, limiting the corresponding airports' suitability as evidence for Dublin Airport's risk exposure to COVID-19.

10.26 Also, an analysis of the impact of COVID-19 on Asset Betas assuming various probabilities of the frequency of catastrophic events suggests that the effect on Asset Betas is relatively small (see Swiss Economics report). This holds for a range of reasonable assumptions regarding the frequency of pandemic-like events as, e.g., once every 10 or once every 20 years.

10.27 By the time of the Final Decision, there will be more data available in relation to the post-COVID-19 betas from 2022, which we expect to update our analysis for. This could allow us to place more weight on the post-COVID-19 betas, rather than pre-2020.

### *Equity Risk Premium*

10.28 We allow an Equity Risk Premium of 7.32%, which is 33 basis points higher than the 2019 estimate of 6.99%.

10.29 We have not changed the methodology of the 2019 Determination for the estimation of the Equity Risk Premium. It is derived as the difference between the Total Market Return estimate of 6.25% (13 basis points lower than the 2019 value of 6.38%) and the Risk-Free Rate (-1.07%).

10.30 We combine backward-looking evidence using long-term historic stock market returns from Dimson Marsh and Staunton dataset<sup>31</sup> and forward-looking estimate using a dividend discount model to inform the level of the Total Market Return estimate.

10.31 The increase of the Equity Risk Premium by 33 basis points compared to the 2019 Determination is mainly driven by the decrease of the Risk-Free Rate from -0.61% (2019 Determination) to -1.07% (2022).

## Cost of Debt

10.32 We allow a real Cost of Debt range for Dublin Airport from -0.31% to 0.11%, with a point estimate of -0.10%. The point estimate is 73 basis points lower than in the 2019 Determination.

10.33 As in the 2019 Determination, the allowed real Cost of Debt reflects weighted rates on actual embedded debt and new debt.

10.34 The cost of embedded debt is calculated based on the cost of current cost of existing debt and a forecast of how existing debt agreements are drawn down over the 2022-2026 period. We allow a real Cost of Embedded Debt of between -0.41% and -0.33% with a point estimate of -0.37%. Compared to the 2019 Determination point estimate of 0.55%, this corresponds to a decrease of 92 basis points. The main reason for this decrease is a decline in nominal interest rates and higher expected inflation rates compared to 2019.

10.35 The methodology for estimating Dublin Airport's Cost of New Debt has been amended to more accurately reflect the actual average maturity of debt at issuance. For the 2019 Determination, we used a notional investment horizon of 10 years for Dublin Airport's cost of new debt. Given continued evidence that the average time to maturity at issuance of daa's debt is approximately 15 years, we have changed the notional lender investment horizon to 15 years.

10.36 Specifically, this means that we focus entirely on bond yields of an index for corporate (non-financial) bonds with a remaining maturity of more than 10 years and a BBB investment grade rating as a benchmark. In order to transform this evidence to BBB+, we also consider yields from a A-rated non-financial corporate bond index, using the same methodology as in the 2019 Determination. The average remaining time to maturity of the bonds included in these indices is approximately 14 years. For the 2019 Determination we had also considered a similar index for bonds with a remaining time to maturity of between 7 to 10 years.

10.37 Based on the amended methodology, the allowed real Cost of New Debt ranges between -0.14% and 0.83% with a point estimate of 0.35%. Compared with the allowed real Cost of New Debt in the 2019 Determination of 0.75%, this equates to a decrease of 40 basis points.

10.38 We use the same weighting between the Cost of Embedded Debt and Cost of New Debt as in the original 2019 Determination. Hence, a share of new debt of 38% and a share of embedded debt of 62% is assumed. This will be updated for the Final Decision,

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<sup>31</sup> See Dimson, E., Marsh, P. and Staunton, M. [DMS] (2022). Credit Suisse Global Investment Returns Yearbook 2022.

if materially different, based on an updated understanding of the forecast requirement for new debt implicit in our Final Decision.

10.39 The significant drop in the Cost of Debt can be explained by various factors:

- Underlying the observed decrease in real yields is an increase in inflation expectations in the context of the COVID-19 pandemic which was not followed by a countervailing increase in nominal yields as predicted by economic theory. This could be explained, at least in part, due to the ECB's asset purchasing program (APP) which started in September 2019 and was reinforced during the pandemic with the Pandemic Emergency Purchase Programme (PEPP).
- Also, we observe a reduced risk premium for BBB graded investments since the spread between A-rated European corporate non-financials and BBB rated European corporate non-financials decreased.
- In addition to the fiscal stimulus packages during the pandemic, an increase in the euro area's saving rate might have increased demand for corporate bonds, reinforcing the downward pressure on the nominal yields.

10.40 If a notional credit rating of BBB instead of BBB+ is used to inform the Cost of New Debt, an allowed real Cost of Debt of -0.06% (compared to -0.10% at BBB+) results, increasing the allowed WACC to 4.24% (from 4.22% at BBB+).

## Gearing

10.41 The weighting of the cost of debt and cost of equity is based on a notional gearing of 50%. The assumption on the efficient capital structure remains unchanged compared to the 2019 Determination.

10.42 Gearing remains unchanged in the interest of regulatory consistency and since we are not aware of any compelling reasons to update the methodology for determining Dublin Airport's notional gearing compared to the 2019 Determination.

## Aiming up

10.43 Similar to our 2019 Determination, the pre-tax WACC of 4.22% includes an aiming-up allowance of 0.5%.

10.44 The reasoning behind applying the aiming-up component remains unchanged compared to the 2019 Determination:

- Risk of measurement errors in the WACC components;
- Asymmetric economic effects of under- relative to overinvestment since underinvestment is likely to have asymmetric dynamic effects on welfare;
- No implicit aiming-up is included in other WACC components.

## Submissions on the Cost of Capital

10.45 Since the publication of the Issues Paper, we have engaged with stakeholders in relation to the methodology and estimation results of the cost of capital. We held meetings with, and/or received written submissions from ACI, Aer Lingus, British Airways, Dublin Airport, Ryanair, and IATA to discuss the methodology and initial estimates. These views are summarised below.

**Table 10.3: WACC components**

	2022 CAR Draft		2022 Dublin Airport – approach 1	2022 Dublin Airport – approach 2
	Range	Estimate	Range	Range
<b>Gearing</b>	45% - 55%	50%	50%	50%
<b>Tax rate</b>	-	12.50%	12.5%	12.5%
<b>Risk Free Rate</b>	-1.59% - -0.54%	-1.07%	-0.94% - -0.60%	-0.94% - -0.60%
<b>Total Market Return</b>	5.70% - 6.81%	6.25%	6.8% - 7.0%	6.8% - 7.0%
<b>Equity Risk Premium</b>	6.77% - 7.87%	7.32%	7.6% - 7.7%	7.6% - 7.7%
<b>Asset Beta</b>	0.52 - 0.59	0.56	0.72 - 0.84	0.64 - 0.74
<b>Equity Beta</b>	0.98 - 1.12	1.05	1.44 - 1.68	1.28 - 1.48
<b>Cost of equity</b>	5.55% - 7.65%	6.60%	10.1% - 12.1%	8.9% - 10.6%
<b>Cost of debt</b>	-0.31% - 0.11%	-0.10%	-0.23% - 0.00%	-0.23% - 0.00%
<b>Aiming up</b>	-	0.50%	0.50%	0.50%
<b>Pre-tax WACC</b>	3.85% - 4.49%	4.22%	6.17% - 7.44%	5.47% - 6.59%

Source: CAR, Dublin Airport

10.46 Table 10.3 compares our draft WACC allowance with two different approaches put forward by Dublin Airport. Both approaches by Dublin Airport result in a higher WACC (6.17% to 7.44% in the case of approach 1 and 5.47% to 6.59% in the case of approach 2). Dublin Airport's higher WACC estimates are primarily due to higher Beta estimates.

## General views and comments

10.47 Aer Lingus supports the full re-opening of the WACC as part of the Interim Review. It would also like the Commission to take account of the 'generosity' of the overall settlement in determining the WACC. For example, if there is ample scope to outperform the determinations targets, then overall risk would be lower and the WACC should then also be lower, especially with regard to the aiming up allowance.

10.48 ACI supports the Commission's decision to update the Cost of Capital.

10.49 IATA believes that the Commission's two Interim Reviews during the COVID-19 Pandemic has demonstrated the extent to which the Commission is willing to protect Dublin Airport and that this should be reflected in a lower WACC.

10.50 Dublin Airport believes that the WACC needs to be reassessed and revised upwards to reflect the impact of the COVID-19 pandemic on the risk profile of the Airport. It supports the Commission's continued use of the WACC method of calculating the regulated rate of return for Dublin Airport. However, in setting the Cost of Capital for 2023-26, Dublin Airport believes that the current estimation of the WACC parameters need to be revised and objectively justified. It therefore supports the reassessment of the 2019 Swiss Economics analysis subject to the following recommendations:

- The WACC calculation needs to be grounded in empirical analysis and financial theory rather than benchmarking. However, where the Commission is required to use airport benchmarks, they should be suitable and objectively justifiable.
- The WACC should account for how ongoing uncertainty and volatility have led to increases in the observed asset betas for publicly traded airport operators and therefore an increase in the cost of equity, all else being equal.
- A top-down reassessment of the Risk-free Rate and the Total Market Return will also be necessary to ensure consistency in approach.
- Transaction costs relating to embedded debt should be accounted for in the new cost of debt calculations.
- The WACC analysis should consider the Airport's exposure to volume risk, revenue risk, regulatory risk and country-specific risk for 2023-26, as well as the impact of COVID-19 in recent years, which it believes has raised the systematic risk profile of the Airport.
- Dublin Airport argues it made significant losses in 2020 and 2021 and that requiring it to bear the full impact of this lost revenue will call into question its ability to recover efficient investment in the airport infrastructure, which it feels will have knock on effects for its longer-term investment prospects and how debt providers assess the risk of its business.

10.51 Aer Lingus believes that due to the interventions by the Commission and the Irish government during the pandemic, the airport has been protected from global events and is now shown to be a less risky investment, and less susceptible to risk and shocks. It also argues that the Commission must explicitly show the impact on the WACC of any proposed risk sharing mechanisms.

10.52 ACI argues that the pandemic has made airports a riskier proposition for equity investors, and that the pandemic, combined with the war in Ukraine, are bound to affect equity investors' perceptions and appetites. It further argues that while volume risk was already inherent in the airport business in a way it is not in other regulated industries, the impact of recent events is of a scale not seen since the emergence of modern air transport. It believes that correctly addressing the Cost of Capital and investor perceptions is critical, as failure to do so will result in less airport investment and at higher costs in the future, which will have adverse consequences for airport customers.

10.53 British Airways believes that the interventions made by the Commission and by the

Irish government have made Dublin Airport less risky than the market may have perceived pre-COVID-19, and that this must be reflected in a reduced WACC.

- 10.54 Ryanair does not support any transfer of risks from Dublin Airport to users, but should any occur, considers that this must be reflected in a lower Cost of Capital. It further argues that the interventions by the Commission in 2020 and 2021 imply that the WACC set in 2019 was too high.

### *Commission Response*

- 10.55 We assessed each component of the WACC using recent quantitative and qualitative evidence, keeping economic theory and regulatory practice in mind. The WACC reflects our best estimate of Dublin Airport's cost of capital (including an aiming-up to mitigate asymmetric estimation risks).
- 10.56 The Commission's willingness and legislative ability to support Dublin Airport in the case of pandemic-level events is reflected in the estimation of Asset Betas, which is based on *non-pandemic* periods.
- 10.57 All components of the WACC calculation have been reassessed. Most parts of the methodology to determine the WACC remain unchanged compared to the 2019 Determination ensuring regulatory consistency. However, where deemed necessary, the methodology is adjusted. This is primarily the case for the calculation of Beta values and the Cost of New Debt.

### **Beta**

- 10.58 IATA believes that a risk sharing mechanism at Dublin Airport would significantly reduce its risks, and that this should be reflected in a reduced Beta. It requests that the Commission then publish both the pre and post adjustment Betas for comparison, as well of the impacts of different scenarios on the Beta.
- 10.59 Ryanair is concerned that the Commission will focus too much on the short-term changes throughout the pandemic, which it does not consider relevant to deciding the appropriate Cost of Equity going forward. It requests that the Commission take a long-term view. It further asserts that the strength of Dublin Airport's two main airline users and the strong traffic outlook for 2022 means that the airport should be exposed to lower levels of risk than potential comparators.
- 10.60 Dublin Airport stresses the importance of choosing appropriate comparators when assessing its Beta, recommending airports that operate under a similar regulatory framework to Dublin Airport. On this basis, it points to AENA (the operator of a large network of Spanish airports) and Aéroports de Paris (AdP).
- 10.61 The Airport also believes that the 2019 Asset Beta of 0.5 is artificially low and that it should be revised upwards to reflect the higher level of risk currently faced by the Airport. It argues that the latest market evidence suggests that airports comparable to Dublin Airport have experienced significant declines in equity performance since the start of the pandemic and that two-year Asset Betas have increased on average by 0.2, with no sign of a reversion to pre-crisis levels.

- 10.62 While Dublin Airport acknowledges that the regulatory support provided to it by the Commission through the interim reviews in 2020 and 2021 has mitigated the COVID-19 risk, it argues that it has also experienced more extensive demand and revenue reductions than its peer airports. It argues that the Commission's current statutory objectives require it to set a new Cost of Capital which takes account of the high level of risk which the Airport currently faces.
- 10.63 It further argues that the updated Asset Beta will need to be based on estimates relevant to the pandemic given that there is no expectation of an immediate end to the impact of the pandemic. It also believes that investor perception of risk has permanently changed, and that Dublin Airport has not been compensated for pandemic related risks to date and that such risks cannot be ignored going forward.

### *Commission Response*

- 10.64 Since we do not adopt any explicit forward risk sharing mechanism (other than those already in place in 2019), IATA's request for the publication of explicit pre- and post-adjustment Betas is not relevant.
- 10.65 In relation to Ryanair's comment on short-term impacts of the pandemic, as outlined above, the Swiss Economics methodology aims to determine "non-pandemic" Betas, adjusted for any temporary turmoil on financial markets related to COVID-19.
- 10.66 We agree with Dublin Airport that choosing appropriate comparators is important when assessing its Beta risk. Furthermore, we agree that differences in regulatory frameworks (and in particular the scope for price adjustments) can constitute a major driver of differences in Beta risk across airports. However, we continue to believe that there are risk drivers related to the composition of demand as well as risk drivers related to airport characteristics that can play a significant role in airports' risk profiles, and these factors should not be neglected. We also do not agree that regulatory frameworks can be readily compartmentalised in the manner suggested by Dublin Airport; in practice there are significant differences and nuances between the frameworks in place at Dublin Airport, AENA, and ADP, both in terms of risk assignment but also features such as the scope of services included within the regulatory till and the role of the regulator. These are described in more detail in the Swiss Economics 2022 report.
- 10.67 In addition, Swiss Economics has undertaken sensitivity analyses that show the impact of putting more weight on risk dimensions related to regulatory risk is small.
- 10.68 We therefore do not exclusively draw evidence on the level of the Asset Beta from two comparator airports (AENA and AdP) as suggested by Dublin Airport. First, the two airports show significant differences compared to Dublin Airport that may substantially impact their comparability with regards to the risk profile. Second, we observe substantial movements in Asset Betas for individual airports over time that can hardly be explained by underlying changes in risk profiles. This leads to a risk of idiosyncratic effects skewing Dublin Airport's Beta estimate. By using (weighted) averages of a larger number of comparator Betas, the effect of random fluctuations in the level of individual Asset Betas can be mitigated.

- 10.69 In the absence of perfect comparators, a weighting scheme for peer airports that considers all sources of risk continues to be our preferred approach to assessing Dublin Airport's Beta risk. These points were considered in detail through the 2019 Determination process and the subsequent appeal of our approach, which did not lead to a referral from the Appeals Panel on this point.
- 10.70 Our analysis supports Dublin Airport's view that its Beta risk has increased since the 2019 determination. Using updated financial markets data and adjusting for COVID-19 effects, Swiss Economics finds an increase in Dublin Airport's Asset Beta of approximately 10 per cent from 0.50 to 0.56. As empirical Beta estimates have in large parts returned to their pre-pandemic levels (as evidenced by 1-year-rolling-Betas for example, see Swiss Economics 2022 Report for more detail), an even sharper increase in Dublin Airport's Asset Beta could not be justified based on actual market data.
- 10.71 Generally, we do not agree with Dublin Airport that our estimate of its Asset Beta is artificially low. The new Asset Beta of 0.56 translates into an Equity Beta of 1.05, exceeding the Beta of the overall economy and also exceeding what the Thessaloniki Forum of Airport Charges Regulators considers to be an upper limit for Airport Betas.
- 10.72 We acknowledge that international travel restrictions and changed travel behaviour in connection to the pandemic led to a major drop in passenger numbers at Dublin Airport. However, the 2020 and 2021 interim reviews mitigated the volume impact of the pandemic. Thus, the Commission has credibly demonstrated to investors that it will be prepared to intervene and soften Dublin Airport's regulatory constraints in the case of exceptional events, mitigating the need for additional risk premia.
- 10.73 We agree that we did not, however, fully re-set volume risk in relation to 2020 and 2021. As we have noted previously, Dublin Airport has benefitted significantly from the risk allocation in previous periods. It would not be appropriate for Dublin Airport to hold only upside volume risk, such that it benefits from outperformance in previous regulatory periods but is fully protected from underperformance.
- 10.74 For example, over 2015-2019, there were an additional 30m passengers, in total, compared the forecasts in the 2014 Determination. Dublin Airport has retained the benefits of this outperformance, equivalent to approximately €280m in additional aeronautical revenues alone, before the additional Commercial Revenues (net of additional operating costs) those passengers generated is considered.

## Cost of Debt

- 10.75 Ryanair is concerned that the Commission is focussed too much on the short-term implications of the pandemic and that a long-term view is needed, given that much of Dublin Airport's debt is long-term. It therefore argues that the Cost of Debt should not vary significantly from the previous Determination and may in fact have fallen due to the Airport's substitution of new bond finance for older debt. Ryanair notes that Dublin Airport retained a 'highly favourable' credit rating throughout the pandemic, and that this does not suggest that it would have any difficulty in raising further debt going forward. It further asserts that the airport's indebtedness is not fundamentally different from other entities and does not need protection through a higher WACC or a financeability adjustment. It states that Dublin Airport's debt needs to be viewed



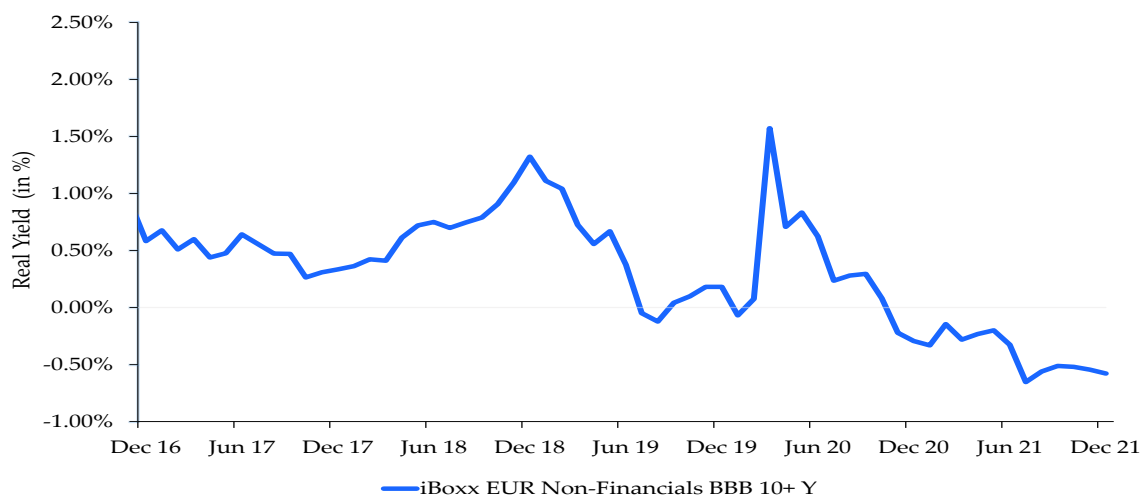
within the context of historically low debt relative to the size of the airport and compared to similarly sized airports.

- 10.76 Dublin Airport wishes to see a reassessment of the cost of embedded debt and expects this to show a reduction in the cost of embedded debt for the Airport, given that 60% of its existing debt has been issued in the last 2 years at a relatively lower rate, and because expected inflation has increased since 2019 from 1.2% to 1.9%. It also expects that a reassessment of the cost of new debt will also show a decline due to the decreasing iBoxx yield and higher inflation expectation.

### Commission Response

- 10.77 We have considered Ryanair’s concerns; however, we have not focused on short-term implications of the pandemic on the Cost of Debt. Figure 10.1 illustrates average real corporate EUR bond yields with 10+ years remaining to maturity over time. Although a clear increase in yields can be observed in the first months after the worldwide outbreak of COVID-19, from June 2020 yields start to fall even further than pre-crisis levels and remain low until the end of 2021.

Figure 10.1: EUR bond yields with 10+ years remaining to maturity



Source: Swiss Economics Report, Figure 8

- 10.78 We consider that there are additional adjustments required to the determination of the Cost of Debt due to Dublin Airport’s credit rating that remained ‘highly favourable’ during the pandemic, or the alleged low level of debt compared with other airports of its size. Our methodology aims to determine a weighted rate of actual and efficient costs, reflecting that Dublin Airport cannot influence the cost of embedded debt anymore, but should not only be allowed to recover yields on an efficient level for new debt.

### Aiming up

- 10.79 IATA does not support the use of an aiming up adjustment, as it considers it an artificial way of increasing charges at the expense of consumers.

- 10.80 Ryanair disagrees with the need for an aiming up allowance as it believes there is no evidence that such an allowance is required to incentivise investment. It cites the Commission's revised Statutory Objective to protect and promote user interests, as justification for removing it as argues that the aiming up favours investment over lowering prices to benefit consumers. It does not agree with the Commission that the long-term effects of underinvestment are likely to have a significant impact on passengers. It argues that the onus must be on ensuring that Capital Investment is affordable without the need for an 'aiming up' adjustment. It argues that to do otherwise is to encourage inefficient investment at the expense of users, which in turn increases the perceived risk, putting upward pressure on the WACC.
- 10.81 Dublin Airport supports the continued inclusion of the aiming up allowance, as it believes that a high level of market uncertainty remains, that there is a need to address asymmetry in incentive mechanisms and/or cost allowances, and to support the financial viability of the airport operation.

### *Commission Response*

- 10.82 We allow for an aiming up component of 50 basis points. The key reasons to support an aiming-up component mentioned in the 2019 Determination are still valid:
- Risk of measurement errors in the WACC components.
  - Asymmetric economic effects of underinvestment relative to the cost of the aiming up allowance. As set out in Section 11 and Appendix 2, we consider that underinvestment is likely to have more severe dynamic effects on welfare.
  - There is no implicit aiming up in individual WACC components, such as using the upper ends of the ranges.

### **Gearing**

- 10.83 Aer Lingus notes that Dublin Airport is responsible for its gearing and financial structure and that if those decisions place additional costs on Dublin Airport, over and above those of a notionally efficient business, then those costs should be borne by Dublin Airport, not by passengers. It requests that the Commission re-examine the notional gearing ratio.
- 10.84 Ryanair disagrees with the Commission's statement in the February 2022 Issues Paper that there was no convincing argument for changing the notional gearing at this time, given the historically low Cost of Debt. It argues that if the aim was to estimate gearing that reflects a capital structure of an efficient airport to minimise its cost of capital, then the ideal capital structure should incorporate a greater proportion of debt financing which could shift the risk away from equity investors. It further argues that in circumstances where Dublin Airport is reliant on debt because of the unwillingness of its shareholder to inject equity, but where the cost of debt is lower than the assumed cost of equity within the WACC calculations, it is penalising users if the WACC is set on the basis of an assumption that gearing is 50:50.

### *Commission Response*

- 10.85 We see no persuasive reason to adjust the notional gearing rate of 50%.
- 10.86 Some regulators propose higher gearing rates. For example, the UK Civil Aviation Authority (CAA), propose a gearing range of 61% to 62% for the upcoming Heathrow regulatory period H7 (CAA, 2021)<sup>32</sup>. This range is however very close to previous gearing levels of 60% that were used in older decisions (including decisions where debt rates were higher). Other regulators, such as the Spanish Comision Nacional de los Mercados y la Competencia (CNMC) use lower values.
- 10.87 The effect of moderate gearing rate changes is small. A sensitivity analysis of the effect of using a gearing of 60% on the WACC (see Swiss Economics report) shows that the effect on the WACC is small. The effect from the decrease of the weight of the cost of equity is offset by an increase of the level of the cost of equity driven by an increase of the equity beta.

### **Corporate Tax**

- 10.88 Ryanair express doubt that Dublin Airport will reach the threshold for the new Corporate Tax Rate to apply within the proposed regulatory period.

### *Commission Response*

- 10.89 We continue to use a tax rate of 12.5%, both for re-levering Betas and determining the pre-tax cost of equity. This is because, according to Dublin Airport, the OECD minimum tax rate will likely not apply to the regulated entity of Dublin Airport, given its operations are limited to Ireland. This is therefore also reflected in the NERA analysis.

### **Total Market Returns (TMR)**

- 10.90 Dublin Airport expects the TMR to be reassessed using the latest data, which it believes would indicate that the historical TMR has increased since 2019.

### *Commission Response*

- 10.91 We have reassessed the TMR based on backward-looking data (currently to the end of 2021) as well as forward-looking evidence. The latest estimates from Dimson Marsh and Staunton suggest a slight decrease for European-wide returns from 6.2 to 6.1 per cent. Our updated dividend discount model suggests that expectations on stock market returns have decreased slightly recently. Overall, the updated evidence points to a decrease of the point estimate of the TMR of 12 basis points.

### **Risk Free Rate (RFR)**

- 10.92 Dublin Airport would like to see the RFR reassessed as part of any update and believes that the real RFR has decreased since 2019 due to the decline in nominal bond yields and the increase in expected inflation, although it believes this decrease will be partly

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<sup>32</sup> CAA (2021). Economic regulation of Heathrow Airport Limited: H7 Initial Proposals. Published by the Civil Aviation Authority, October 2021.

offset by higher forward rates.

### *Commission Response*

10.93 Our draft assessment of the Risk-Free Rate is broadly in line with Dublin Airport's view.

### **What Can Change for the Final Decision**

10.94 In addition to our considerations of representations from stakeholders in response to the methodology proposed, we expect to update the estimate ahead of the Final Decision based on material up-to-date information such as bond yields or the assumed weighting of embedded debt.

## 11. Capital Costs

**Table 11.1: Capital Cost Allowances, €m (excluding triggers)**

	2020	2021	2022	2023	2024	2025	2026
Original 2019 Determination Capital Costs, (€m)	194.4	240.2	275.8	303.6	332.0		
<u>Reviewed Determination</u>							
Return on Capital, (€m)				92.5	102.8	112.5	122.8
Return of Capital, (€m)				105.5	124.9	139.5	160.0
Return of Capital (extra depreciation) (€m)				21.1	18.6	14.3	7.0
<b>Total, (€m)</b>				<b>219.1</b>	<b>246.3</b>	<b>266.3</b>	<b>289.8</b>
<b>Per passenger, (€)</b>				<b>7.28</b>	<b>7.63</b>	<b>7.80</b>	<b>8.23</b>

Source: CAR

- 11.1 Our proposed annual Capital Cost allowances for the period are slightly lower on average than the original 2019 Determination allowances, at an average of €255.4m per year versus an average of €269.2m per year allowed in 2019. Our proposed allowances will increase from €219.1m in 2023 to €289.8m in 2026. Capital costs includes a financeability adjustment, through accelerated depreciation, which is set out in Section 12.
- 11.2 The main driver of the difference between Capital Costs for the upcoming period and the Capital Costs arrived at in the 2019 Determination is that new untriggered Capex per year is lower, while the Cost of Capital is broadly the same in both.
- 11.3 This section assesses, in turn:
- The RAB Roll Forward, and a reconciliation of the 2020-2022 Capital allowances and;
  - The 2023-2026 Capital allowances, and the proposed regulatory treatment of these. Appendix 2 lays out our analysis of the individual projects and any proposed adjustments to these since 2019.

### RAB Roll Forward

#### Opening RAB 2023 – Summary

- 11.4 The 2023 opening RAB is expected to be €1,915.9m. This compares to an opening RAB in 2020 of €1,851.4m.

**Table 11.2: Deriving the 2023 Opening RAB**

RAB Summary Table	€m	€m
Opening RAB 2020	1,851.4	
Standard Capex 2020-2022		193.4
Completed PACE Projects		41.9
Completed StageGate Projects		205.4
Standard Regulatory Depreciation		-320.0

Extra Regulatory Depreciation		-56.1
<b>Opening RAB 2023</b>	<b>1,915.9</b>	

Source: Dublin Airport, CAR Calculations

- 11.5 To derive the 2023 opening RAB, we follow the approach we proposed in the Issues Paper, which is consistent with the approach we followed in 2019. It also implements the first and second interim reviews of the 2019 Determination which committed to not clawing back the remuneration of unspent Capex in the period 2020 to 2022. It is important to stress that this unspent Capex will not enter the RAB for ongoing remuneration in 2023 and beyond, i.e., this relief was applied for 2020-2022 only rather than the full lifetime of the assets on which expenditure did not take place. How we calculated the opening RAB is summarised in Table 11.2, and all details of the calculations can be observed in the '2023 Opening RAB' section of the financial model.
- 11.6 In 2019, between 2020 and 2024, excluding HBS3 and the PACE type 1 projects, we allowed for Capital Expenditure of approximately €395m per annum as part of the CIP 2020.<sup>33</sup> Total Capex allowances for 2020-2022 were thus approximately €1.2bn. However, the actual expenditure was far less than this, as shown above in Table 11.2 and at a project level in the financial model.

### Reconciling 2020-2022 Capital Allowances

- 11.7 In 2019, we set capital allowances across seven groupings, within which we provided a varying degree of flexibility. Expenditure within a group could generally be reallocated between projects, or to new projects not initially envisaged but which would fall under the same group heading, provided that the total expenditure in the group did not exceed the allowance. The exception to this is Deliverables, which are projects whose allowances are dependent on delivery of the project, i.e., if these projects are not delivered the group allowance is adjusted down by the associated amount. Thus, over or underspend on the project can still be reallocated to or from the group.
- 11.8 We also introduced the StageGate process, generally for large scale projects. Through this process, Dublin Airport, airport users, the Commission, and an Independent Fund Surveyor (IFS) continue to assess cost developments of the projects across their development and construction phases. The output from the process then feeds through to the Commission's final decision on cost allowances for the projects, which will be made after they are complete. The 2019 Determination provided for a significant level of Capex flexibility relative to previous determinations, with 9% of total value of allowances considered 'Deliverables', 23% considered Flexible, and 68% included in the StageGate process.
- 11.9 As this is an Interim Review rather than the conclusion of a full regulatory period, there are a number of bespoke adjustments required, which are described below, and can be traced through from the original 2019 Determination in the financial model. This is to capture the fact that we are dealing with allowances and investment programmes for the full regulatory period 2020-2026, which have been partly expended but mostly

<sup>33</sup> The North Runway is a trigger project, so expenditure is also excluded here.

remain forward allowances, as opposed to the standard approach to rolling forward the RAB at the end of a regulatory period.

### *Adjusting the allowances*

- 11.10 In broad terms, our proposed approach is to update the 2023 opening RAB for actual expenditure to end 2021 and budgeted expenditure in 2022. The actual expenditure is far lower than expected in 2019, thus the opening RAB in 2023 is lower than the original 2019 Determination assumed it would be.
- 11.11 As 2019 project costings included escalation allowances (cost components to allow for construction price inflation between when costings are developed and expected construction dates) relating to delivery over 2020-2022, below we compare outturn expenditure against these allowances in nominal terms. The resulting adjustments are then converted to real prices for the opening RAB, so that the entire RAB remains properly subject to inflation adjustments in future.
- 11.12 For the grouped allowances, we pro-rate the original 2020-2024 grouped allowances by 3/5<sup>th</sup> to scale them to the period 2020-2022, and compare expenditure over 2020-2022 against these adjusted allowances. We do not propose to adjust them downward for Deliverable projects which have not yet been delivered, as the regulatory period has not concluded. Furthermore, there is no point in adjusting for Deliverables now only to re-include the same projects in the forward allowances. Ultimately, at the end of the period, we intend to carry out the final reconciliation between the allowances (adjusted for Deliverables if necessary) and actual expenditure to determine the size of the 2027 opening RAB. With the regulatory period due to end in 2026, this means that Dublin Airport has two additional years to complete the Deliverable projects. There are several individual projects within the groupings showing a project level overspend. In line with the grouped allowances approach, this expenditure has been reallocated to other project(s) within the same group.
- 11.13 On that basis, Dublin Airport's actual expenditure is currently below the pro-rated allowance for each category of grouped allowance. This actual expenditure is thus included in the opening RAB. The remaining allowance for 2023-2026 is then included in the forward allowances.
- 11.14 For StageGate projects other than HBS3, we similarly include expenditure to end 2022 in the 2023 opening RAB (see below for treatment of HBS3). This amounts to just €20.2m, compared to our 2019 assumption of €654.8m, reflecting the fact that Dublin Airport postponed most major projects at the onset of the pandemic. We take a similar approach to PACE projects not yet completed, on which Dublin Airport has spent €40.8m compared to the 2019 Determination assumption of over €100m. Expenditure to date on projects within the new sustainability grouping is also included, which is €1.8m.
- 11.15 There are a number of exceptions to this proposed approach:
- Triggered projects, for which the full allowance is included for the trigger amounts rather than the opening RAB. Triggers are discussed below in the Project Allowances-IFS Efficiency Assessment subsection.

- PACE projects which have been completed since 2019, which is explained below.
- The HBS3 StageGate project, which is also explained below.

**Table 11.3: Reconciliation of 2020-2022 Allowances and Expenditure, excluding triggered projects**

	Allowance (€m)	Adjusted Allowance (€m)	Spent (€m)	Enters 2023 RAB (€m)
Asset Care - Civil/Structural/Fleet	121.2	72.7	43.9	43.9
Asset Care - Mechanical & Electrical	99.9	60.0	25.2	25.2
Capacity	110.8	66.5	27.3	27.3
Commercial	118.6	71.1	26.3	26.3
IT	78.2	46.9	33.3	33.3
Security	57.5	34.5	10.9	10.9
Other	21.9	13.2	13.0	13.0
Sustainability	-	-	1.8	1.8
StageGate	1091.4	N/A	20.2	20.2

Source: Dublin Airport, CAR calculations. Expenditure and Allowances are in nominal prices. StageGate projects are not subject to the grouped allowances approach.

### Treatment of PACE Projects

- 11.16 In 2019 we split the PACE projects into two groups, those completed (Type 1), which were added in full to the 2020 opening RAB, and those not completed (Type 2), which were added in increments across the regulatory period in the same manner as new CIP projects. As proposed in the Issues Paper we have kept this approach and updated it by moving the PACE projects completed since 2019 from Type 2 to Type 1. The net remuneration of these projects (€41.9m) is now included in the 2023 Opening RAB.
- 11.17 The remaining allowances for projects in Type 2 have been added to the Capital Expenditure allowances for the period 2023-2026 along with the CIP2020+ projects, with forward remuneration being profiled over 2023-2026.
- 11.18 Dublin Airport has requested that an allowance be granted for the remainder of the South Apron PBZ cost. However, the conditions set out under the 2014 Determination for the remuneration of this project have not been met. This means that the associated additional allowance will not be remunerated. The PBZ was not included in the original 2019 Determination for this same reason.

### Treatment of Completed StageGate Projects

- 11.19 The HBS3 project is complete in T2 and expected to complete in T1 in early 2023. We propose to use the IFS' recommended StageGate 1 allowances for these projects, which is €223.3m. Of this, €205.4m remains undepreciated as of the start of 2023. This has been included in the 2023 opening RAB.
- 11.20 We note that Dublin Airport has made a StageGate 2 submission to the IFS for a small further cost allowance in relation to the T1 project. If an updated figure is available in time for our Final Decision, we propose to use that figure.



## Treatment of the North Runway

11.21 In 2016/2017, we conducted an interim review of the 2014 Determination to better align the remuneration of the runway project with the timeline for delivery. We divided the trigger into 3 milestones. The first milestone was commencement of the main works. This occurred in 2018, resulting in €25.2m of the allowance being remunerated. As the project is ongoing the expenditure on the first milestone has not been reconciled against the allowance. Rather, we are continuing to allow for the M1 trigger over 2023-2026.

**Table 11.4: North Runway Triggers**

Trigger	2023	2024	2025	2026
M2 Trigger	€0.33	€0.31	€0.29	€0.29
M3 Trigger	€0.02	€0.02	€0.02	€0.02

Source: CAR

11.22 We anticipate that the M2 and M3 runway triggers will be reached in the forthcoming regulatory period, with M2 expected to enter the price cap 2024 and M3 expected in 2026.<sup>34</sup> These are set to add the amounts in Table 11.4 to the price cap, based on our draft WACC and passenger forecasts. As determined in 2014, a 50/50 risk sharing mechanism between the airport and users remains in place for cost over/underruns on this project. We expect to reconcile outturn expenditure on the runway project at the next determination, with the net allowed remuneration not already generated by the triggers entering the opening RAB.

## Interim Consultation Requirement

11.23 As part of the 2020 and 2021 interim reviews of the 2019 Determination, we introduced a requirement for Dublin Airport to undertake a consultation on all substantial Capex projects (projects over €4m) which it wants to progress between 2020 and 2022. This process was intended to protect the interests of future users by ensuring that Dublin Airport would not proceed with the major capacity expansion projects until the post-COVID scenario became clearer. Dublin Airport complied fully this requirement; there was no disagreement between stakeholders at the consultation.

## 2022 Expenditure

11.24 Our reconciliation of 2020-2022 expenditure relies on Dublin Airport's budgeted amounts for expenditure and project completion for 2022. We may revise these forecasts for the Final Decision if more up-to-date forecasts are available, although we note that a change in the 2022 expenditure would be offset by an opposite change in the forward allowances for 2023-2026. At the time of the next Determination, we will assess outturn expenditure against these forecasts and adjust accordingly.

## Conclusion

11.25 Overall, it should be noted that while this is a Full Building Blocks Review, it is still an

<sup>34</sup> <https://www.fingal.ie/sites/default/files/2022-06/Regulatory%20Decision%20Report.pdf>

Interim Review within a determination period, rather than the conclusion of a regulatory period and start of a new one. As such we have updated the 2023 opening RAB based on actual expenditure to date 2020-2022, which was considerably less than forecast in 2019. The remaining allowances for 2023 and beyond have been termed 'forward allowances'.

## 2023-2026 Capital Allowances – CIP2020+ Review

### *Summary of Dublin Airport's Proposed Capital Investment Plan*

- 11.26 Dublin Airport has updated its 2019 CIP, updating the cost estimates and timelines, the scope of many projects, as well as including several new projects and removing or deferring others. The Airport has proposed approximately €3.2bn in capital expenditure allowances for inclusion within the scope of the regulatory settlement.<sup>35</sup> Approximately €0.5bn will be spent by the end of 2022 and approximately €2.1bn is proposed in forward allowances for 2023 to 2026, with the balance of approximately €0.6bn expected to be spent post 2026.
- 11.27 Dublin Airport's proposed approach for Core projects is to maintain scope as per the 2019 CIP but to adjust the project costs for interim and forward construction inflation. Dublin Airport proposes approximately €900m (including StageGate projects) in this category. Core is made up of the following groupings from the 2019 Determination:
- Asset Care Civil/Structural/Fleet
  - Asset Care Mechanical and Engineering
  - IT
  - Security
  - 'Other'
- 11.28 For the additional two years of this CIP period, Dublin Airport has proposed the addition of four new Core projects and a pro-rata allowance of €39m per year for the extra two years, for minor "typical" projects. This approach differed to the one Dublin Airport proposed in the consultations on the draft CIP, which included a larger pro-rata allowance but not the four additional projects.
- 11.29 For the Commercial category, approximately €190m in Capex projects have been proposed by Dublin Airport, following the individual reconsideration of the projects previously proposed in the CIP. In many instances scope and inflation adjustments have been proposed. Two new Commercial projects, Fuel Farm Welfare and Old Central Terminal Building (OCTB) Refurbishment, have also been included.
- 11.30 For the Capacity category, approximately €1.4bn in Capex projects have been proposed by Dublin Airport. Several new projects have been proposed, including the Taxiway Romeo Widening Works, and Fuel Hydrant Network projects. Projects have

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<sup>35</sup> Figures in this subsection are in nominal terms as provided by Dublin Airport.

been adjusted for inflation, and in some cases scope change.

- 11.31 A new Sustainability grouping is proposed. It includes €395m of projects which are designed to enable the airport meet environmental and emissions targets and goals. The majority of these are proposed by Dublin Airport to be StageGate projects.
- 11.32 Several projects have been cancelled or deferred. These include: the Terminal 1 Pier New Airbridges and the Hydrant Enablement – Pier 2 & 3 projects, which were cancelled, and the New Remote Apron 5M and Terminal 1 Check-in projects, which were deferred.

### *Summary of Draft Decision on 2023-2026 Capital Allowances*

- 11.33 The IFS has been commissioned to carry out an updated efficiency assessment of the proposed projects. The key points of its report are outlined later in this section. Both the Commission and the IFS consider the approach outlined above to be reasonable in principle and have followed it in our own analysis.
- 11.34 We have assessed the proposed project outputs, having regard to our Statutory Objectives and the views expressed by stakeholders. In many cases, project outputs are broadly in line with 2019, and so we continue to draw on our 2019 analysis of these projects, including the simulation modelling we commissioned which showed that the airport system, post completion of the CIP, would allow for 40 million passengers per annum, with most of the key processors then being appropriately sized. In line with Dublin Airport's approach, we consider the projects termed 'Core' at a group level. No changes were proposed in these groupings, other than inflationary adjustments, and the inclusion of four new projects. We consider the capacity, commercial, and sustainability groupings individually, as set out in Appendix 2.
- 11.35 We also consider the appropriate regulatory treatment for each project, i.e., whether any changes were warranted to the deliverability status, and the time profiling of remuneration for allowed projects.
- 11.36 We consider that the updated CIP is generally in the interests of both current and future users of the airport, provided that the growth in demand for air travel at Dublin Airport continues as anticipated. Of the 159 projects potentially falling within the scope of the regulatory settlements, we have allowed for 158.
- 11.37 We have set out our views on individual projects in Appendix 2, which also includes a summary table of the entire set of allowed projects, together with their regulatory treatments.
- 11.38 The only project we are proposing to disallow is the Drop-off/Pick-up access charging project. We believe significant uncertainty remains in relation to this project, including details of the commercial proposition and the objectives of the project. We also do not include this project in our forecasts for Commercial Revenues or Operating Costs.
- 11.39 We do not propose to include the additional pro-rata Core allowance for 2025 and 2026. As identified in the IFS report, the inclusion of the pro-rata allowance would bring average annual Core Capex for the period to almost €100m, which is twice the ten-year average for Core between 2010 and 2019 in real terms. While we expect that

Core expenditure will likely need to increase relative to that decade, we consider that delivering all of the proposed projects by 2026 is already ambitious. We therefore do not believe that this additional allowance is needed, or that the total level of Core expenditure proposed by Dublin Airport would likely be spent within the period. We do propose to add flexibility to the Asset Care CSF grouping, as set out in Appendix 2, which will enhance the ability to reallocate allowances to projects which have not yet crystallised.

- 11.40 There are already within-period mechanisms available should Dublin Airport consider that additional expenditure relative to any of the grouped allowances is required. In previous determinations, we laid out a clear process for Dublin Airport to follow should the allowances be insufficient. If it believes it will exceed an allowance on a particular group, it should consult with users. If users agreed to that overspend then in the next determination when reconciling spending, we would increase the allowance by the amount of the consultation. For a consultation to result in an increased allowance Dublin Airport must demonstrate substantial support from users. In 2016, we developed a more certain process to allow for supplementary Capex within the regulatory period. In 2018, Dublin Airport made use of this process for the Programme of Airport Campus Enhancement (PACE).
- 11.41 Inflation in the construction sector is a major contributor to the project-level cost increases seen in the updated CIP. It has been running at a higher rate than overall inflation in recent years. We have converted the project costings to real prices by deducting forecast general inflation. This aligns with the overall price cap determination (which is also being made in real prices) and is necessary to avoid double counting inflation when we uplift the price cap within the period. Given that significantly higher general inflation is expected relative to 2019, this double count would be very significant in the absence of making this adjustment. The IFS has assessed the treatment of construction inflation in the costings. When reconciling outturn expenditure in the next determination, we expect to do this with direct reference to the nominal costings as we have done with HBS3 and completed PACE projects in this review.
- 11.42 As discussed later in this section, several Capacity projects have been classified as triggered, meaning that remuneration for these projects will only begin upon the achievement of certain key milestones.
- 11.43 In total, we propose making allowances for capital projects of approximately €2.9bn in real terms, including expenditure before and after the current review period 2023-2026.

### *Consultation and Reporting*

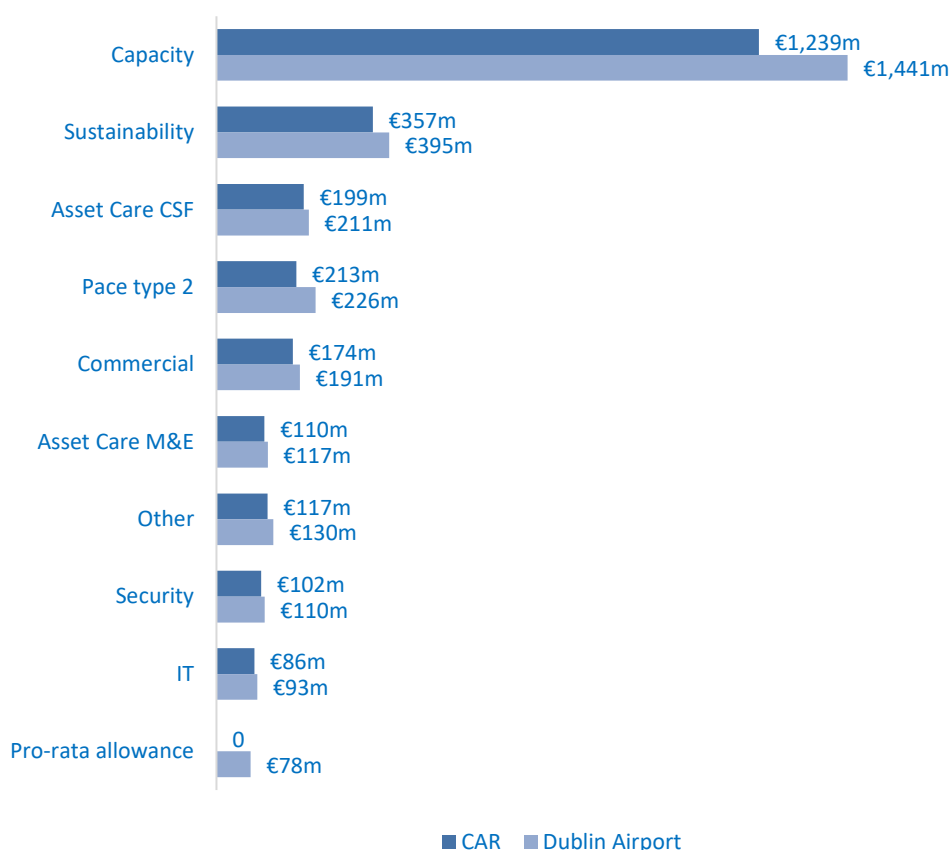
- 11.44 Dublin Airport has held a consultation on its updated CIP, as required by this process and also under Article 8 of the Airport Charges Directive ('ACD'), and in line with the recommendations of the Thessaloniki Forum of European Airport Charges Regulators. In some cases, Dublin Airport has adjusted the CIP based on feedback received, for example, by replacing a significant proportion of its requested additional Core allowance for 2025 and 2026 with specific Core projects. In other cases, it has provided reasons why feedback has not been implemented, for example, with the West Apron

### Vehicle Underpass.

- 11.45 The responses to the consultation were varied. We note that stakeholders were generally supportive of Capacity projects relevant for their own operation. Concerns were expressed over the scale of the overall cost proposal, the overall size of the CIP, the proposed pro-rata Core allowances, certain individual projects, and to issues such as the treatment of inflation.
- 11.46 From 2023, we will again require Dublin Airport to report quarterly on the cost of projects, as well as the delivery of projects against the planned timelines. We will continue to publish this report each quarter.

### *Project Allowances- IFS Efficiency Assessment*

- 11.47 Steer, in its role as IFS, has carried out an efficiency assessment of Dublin Airport's proposed CIP. In line with the approach outlined above, the IFS has sought to assess the efficiency of individual project scopes for other categories, but at an overall level for Core (with the exception of the four new Core projects). This involves identifying any instances where extraneous line items are included in the costing, or the quantification is over or under provided for.
- 11.48 The IFS then assesses the cost proposals. It proposes a cost of approximately €80m less than Dublin Airport. However, the IFS has updated the inflation forecast used by Dublin Airport based on the outturn to end 2021, which was higher than the forecast used by Dublin Airport when costing the projects. The variance between Dublin Airport and the IFS would have been c€110m if Dublin Airport also updated the inflation forecast for the outturn figure.
- 11.49 Both the IFS and Dublin Airport cost the CIP projects in nominal terms, which includes appropriate forward inflation allowances based on the planned midpoint of construction for each project. As noted above, we convert these costings to real prices for the purposes of the real price caps for 2023-2026. To do so, we use the same midpoint of construction to estimate the quantum of construction inflation already expected to be accounted for in the general inflationary increases to the real price cap. The balance is then allowed for as real construction inflation. This is to avoid double counting of inflation between escalation allowances within the project costings, and the overall CPI updates which will be applied to the entire price cap within the period 2023-2026.
- 11.50 For example, the midpoint of construction of Pier 5 is in 2027. The nominal cost estimate (with base date Q4 2021) includes forward construction inflation of almost 19%. We forecast that general inflation to 2027 will be 15.6%. Thus, the real construction inflation allowance is set to 2.5%, which is the required additional uplift to generate the nominal costing by 2027.
- 11.51 The further into the future is the midpoint of construction, the greater the difference between the real and nominal allowance.

**Chart 11.1: Allowances Relative to Dublin Airport proposals**

Source: Dublin Airport, CAR calculations. Dublin Airport figures are in nominal prices, as these have been used by Dublin Airport for its price cap proposals. CAR figures are in real prices.

- 11.52 Dublin Airport has proposed a specific construction inflation adjustment mechanism. We believe that such a mechanism is not required. StageGate already provides for this for projects included in that process, which covers most of the CIP by value. For the remaining projects, there is Capex flexibility provided for by the grouped allowances. We do not consider it appropriate for us to provide an open-ended commitment that airport users will pay escalating construction costs if they were to increase further. We have already taken account of escalation in construction costs since 2019 and the expectation that this will continue.
- 11.53 As in a competitive market, part of the response should be to consider a rationalisation or profile adjustment to the Capex programme, in the event that construction inflation is yet higher than currently forecast. As noted above, we consider the planned timelines to be ambitious; if there were to be delay to the programme, this would offset any further inflationary increase within individual project costs.

**Table 11.5: Draft Allowances by Category (net of StageGate)**

	CAR Allowance (€m)	Dublin Airport (€m)
Asset Care – Civil/Structural/Fleet	136.1	146.8
Asset Care - Mechanical & Electrical	108.4	115.8
Capacity	86.0	123.9
Commercial	174.4	191.4
IT	86.5	105.4
Security	91.1	97.4

Sustainability	29.5	32.5
Other	24.6	29.0
PACE Type 2	182.2	226.1
StageGate	1,647.7	2,093.4

Source: Dublin Airport, CAR calculations. Dublin Airport figures are in nominal prices, CAR figures are in real prices.

11.54 Several projects will require additional consideration between now and the Final Decision. This is especially true for the Sustainability category, in which most of the projects are new since 2019.

### *Time Profiling and Asset Lives*

11.55 The time profile of all Capital Expenditure for which an allowance has been made varies across the Capex different categories. Allowances are profiled as follows:

- For Core projects, we profile the remaining allowances over the remaining four years of the Determination period.
- For Capacity projects we similarly profile the allowances over the remaining four years, with the exception of the trigger projects, which are discussed below.
- For Commercial projects we have generally profiled the projects over the remaining four years, with the exception of projects that are expected to require a longer planning process. For these projects we have profiled all expenditure into the year of expected delivery and aligned this with an associated uplift to the Commercial Revenues forecasts.
- For new Sustainability projects we have profiled the forward allowances for projects over a five-year time period, with the exception of CIP20.03.052 (surface water environmental compliance), which is profiled over four years. This latter project is not a new project; €6.9m has already been spent on it. However, the new Sustainability projects are generally at a very early stage of design, and have generally not been stood up within Dublin Airport. Their design and project outputs will be developed further through the StageGate process. Thus, we consider it unlikely that all these projects will be fully delivered and expended on by 2026. We therefore profile them to the standard five-year regulatory period. On the other hand, we do not propose to use triggers for the Sustainability projects, although we do have some remaining concerns over potential programme delay.

11.56 Depreciation for all investments in the period has been calculated using annuities. We initially introduced the annuity approach in 2009 and maintained it for each subsequent Determination. The effect is that the capital costs (return on capital plus depreciation) in each year of the asset life would be equal if the cost of capital remains the same. This contrasts to straight-line depreciation, where the total capital costs are higher initially and decline over the life of the asset.

11.57 In several cases, we have adjusted the asset lives proposed by Dublin Airport where they do not reflect what we would expect for the project in question. These are Taxiway Romeo Widening (from 20 years to 30 years), the Pier 4 De-Flex (from 15 years to 30 years), and the new Photovoltaic Farm Phase 2 (from 15 years to 25 years). These

projects are discussed in further detail in Appendix 2. The asset life of the Pier 4 De-Flex has been extended to 30 years to more closely align with remaining asset life of terminal two, as suggested by the IFS. This asset life also aligns with the 40-year weighting we assigned to the construction components of the Pier 5 asset life in 2019. However, in most cases, the asset lives for new projects proposed by Dublin Airport are reasonable and we have not changed them. For projects that we already assessed in 2019, we retain the asset life set out in the 2019 Determination.

- 11.58 We consider that there is uncertainty over the ability to deliver all the projects to the planned timelines. In response to this, and to ensure that Capex remuneration is aligned to project delivery, we propose to use triggers for certain projects which tie remuneration to certain key milestones. This approach will ensure that users are only paying for these projects when they are progressed to construction.
- 11.59 Our draft position is to limit the triggers to projects which are expected to require an extended planning process, with uncertainty over the outcome of same. We are seeking stakeholder feedback on whether we should also trigger further major capacity projects due to the risk of programme delay or non-progression of these projects. Such projects, if they are included in the base price cap, could lead to overpayment by airport users within the period and then a large clawback of capital costs, putting downward pressure on the price cap, in the next period. The scale of the proposed investment programme is discussed further in Section 12.
- 11.60 We will remunerate the projects in two phases, using two types of triggers, A and B. Type A triggers will be activated once an initial milestone is reached. We propose this milestone is when the project has received full planning permission, contract for the main construction package have been awarded and it is on-site. B triggers will be activated after a second milestone is reached. We propose this milestone is when the project is operational, at which point the remainder of the Capex will start to be remunerated. Table 11.6 below outlines proposed Trigger projects.

**Table 11.6: Trigger projects**

Project	Allowance (€m)
New Pier 5 (T2 & CBP Enabled)	292.3
Expansion of US Pre-Clearance Facilities	75.4
South Apron Expansion (Remote Stands, Taxiway & Apron)	178.6
North Apron Developments- Pier 1 Extension (Module 1) & Apron 5H PBZ	206.8
South Apron Airside Support Centre	10.8
<b>Total</b>	<b>763.9</b>

Source: CAR

- 11.61 We are proposing that 80% of the capital cost remuneration will occur at the Type A milestone, with full remuneration (together with any associated Opex or Commercial Revenue adjustment) at the B milestone, as shown in tables 11.7 and 11.8 below. The 80% quantum is linked to our financeability assessment and is discussed in Section 12.

**Table 11.7: 'A' Trigger price cap adjustments by project, 2023-2026**

Project	2023	2024	2025	2026
New Pier 5 (T2 & CBP Enabled)	€0.47	€0.44	€0.42	€0.40



Expansion of US Pre-Clearance Facilities	€0.13	€0.12	€0.11	€0.11
South Apron Expansion (Remote Stands, Taxiway & Apron)	€0.26	€0.25	€0.23	€0.22
North Apron Developments- Pier 1 Extension (Module 1) & Apron 5H PBZ	€0.31	€0.29	€0.28	€0.27
South Apron Airside Support Centre	€0.02	€0.02	€0.02	€0.02
<b>Total</b>	<b>€1.20</b>	<b>€1.12</b>	<b>€1.06</b>	<b>€1.03</b>

Source: CAR

- 11.62 We propose that ‘on-site’ for the purposes of the ‘A’ triggers is defined as full planning permission for the project having been received, the contract for the main package of works awarded, and physical construction works on the project have started on the project site. We propose that ‘operational’ for the purposes of the ‘B’ triggers is defined as construction being complete and the project being in use for airport operations.

**Table 11.8: ‘B’ Trigger price cap adjustments by project, 2023-2026**

Project	2023	2024	2025	2026
New Pier 5 (T2 & CBP Enabled)	€0.59	€0.55	€0.52	€0.51
Expansion of US Pre-Clearance Facilities	€0.16	€0.15	€0.14	€0.14
South Apron Expansion (Remote Stands, Taxiway & Apron)	€0.33	€0.31	€0.29	€0.28
North Apron Developments- Pier 1 Extension (Module 1) & Apron 5H PBZ	€0.39	€0.37	€0.34	€0.33
South Apron Airside Support Centre	€0.03	€0.02	€0.02	€0.02
<b>Total</b>	<b>€1.50</b>	<b>€1.40</b>	<b>€1.32</b>	<b>€1.28</b>

Source: CAR

### Future Capacity Requirements

- 11.63 As mentioned above, in 2019 we commissioned Helios to run simulation modelling of both the airfield<sup>36</sup> and terminal buildings<sup>37</sup>. The overall goal was to assess whether the airport system, post-CIP2020, would have appropriate processing capacity to serve 40 million passenger per annum (40 mppa), which was the stated goal of Dublin Airport. Overall, the results indicated that the airport system, post CIP, would allow for 40 mppa, with most of the key processors then being appropriately sized.
- 11.64 The delivery timelines have, however, changed considerably since the 2019 Determination, as have Passenger Forecasts. Dublin Airport now expects to deliver certain aspects of the Capex programme by 2030, in line with its updated expectation of achieving 40 mppa by this time.

### Deliverability and Future Reconciliation

- 11.65 We continue to group the allowances to provide a degree of flexibility to Dublin Airport. For most projects, reconciling outturn expenditure against these allowances will be done at these group levels in the next Determination. We have grouped the projects according to the groupings set out in 2019, with the addition of the new

<sup>36</sup>[https://www.aviationreg.ie/\\_fileupload/2019/Draft%20Determination/2020-2024%20Draft%20CIP%20Airfield%20Modelling.pdf](https://www.aviationreg.ie/_fileupload/2019/Draft%20Determination/2020-2024%20Draft%20CIP%20Airfield%20Modelling.pdf)

<sup>37</sup>[https://www.aviationreg.ie/\\_fileupload/2019/Draft%20Determination/2020-2024%20Draft%20CIP%20Terminal%20Modelling.pdf](https://www.aviationreg.ie/_fileupload/2019/Draft%20Determination/2020-2024%20Draft%20CIP%20Terminal%20Modelling.pdf)

Sustainability grouping. We are proposing that a larger proportion of projects enter the StageGate process than in the 2019 Determination. This is to account for the ongoing uncertainty surrounding deliverability and project costs. StageGate projects are not included in the grouped allowances reconciliation approach. Instead, they are reconciled individually, having regard to the outcome of the StageGate process.

- 11.66 When reconciling expenditure against the allowances in the next regulatory period, if a Deliverable project is not expected to be completed by 2026, we expect to revise the group allowance down by the corresponding amount. On the other hand, an allowance which is flexible may be fully or partially reallocated to a different project or projects, which would fall under the group heading, without any downward revision of the group allowance. The project to which it is reallocated may be either another project set out in the revised CIP, or a new project. Table 11.9 below sets out how the RAB should be rolled forward under various scenarios.

**Table 11.9: RAB Roll Forward Principles**

Scenario	Treatment
Investment delivers expected output at lower cost than allowed for.	The lower cost enters the RAB. Dublin Airport benefits from the saving within the determination period only, as the additional remuneration earned over that time is not clawed back.
Investment delivers expected output at higher cost than allowed for.	The overspend will not enter the RAB, unless Dublin Airport can demonstrate, through consultation, substantial user support for the overspend or that the overspend was outside its control.
Investment does not take place; output is not delivered.	The RAB is revised down accordingly. The associated remuneration allowance is clawed back.
Existing asset in RAB has become obsolete or needs to be removed for other development.	No effect on the RAB.
Existing asset in RAB has been sold.	The RAB is revised down by the amount for which the asset was sold (provided that this was at or close to market price).

Source: CAR

- 11.67 How we view 'expected output' depends on the classification of the allowance. In the case of a Deliverable project, the expected output is the specific project for which the allowance was afforded. Where an allowance is flexible, the expected output is expenditure on projects which would fall within the same grouping for which the allowance was afforded. In the case of investment being abandoned prior to completion, monies already spent are clawed back unless Dublin Airport can demonstrate that users supported the decision to abandon the investment.
- 11.68 If, during the upcoming regulatory period, Dublin Airport believes that one (or more) of the grouped allowances is insufficient, it should either:
- Carry out an interim consultation in which it demonstrates to users why, at a group level, the allowance is no longer sufficient to provide capital investment which is in the interests of airport users.
  - Request a supplementary Capex allowance, in order to obtain full certainty over remuneration.

**Table 11.10: Allowances by Regulatory Treatment**

Treatment	2019 % of total Allowances	2022 % of total Allowances
Deliverable	8%	6%
Flexible	21%	21%
StageGate	71%	73%

Source: CAR

Note: PACE projects not included in the above.

- 11.69 The distribution of allowances across treatment types has changed marginally since 2019, with a greater portion of allowances being treated as StageGate and a smaller proportion being treated as Deliverables.
- 11.70 The Asset Care project categories have the majority of Deliverable projects, with Deliverables accounting for 40% of all Asset Care projects. This was decided on the basis that these projects have been justified in the interests of maintaining existing assets, which cannot be done other than through the works envisioned. On the other hand, in an area such as Commercial Revenues, if Dublin Airport subsequently believes it can achieve greater revenues through projects other than those initially proposed, it should be given the flexibility to do so. If successful, this will benefit Dublin Airport in the first instance, and then ultimately airport users. We have therefore enhanced the flexibility in this grouping to enable Dublin Airport to optimise its expenditure as opportunities present themselves over the coming regulatory period.
- 11.71 We generally agree with the Dublin Airport proposals for the regulatory treatment of new projects as set out in the Appendix 2. However, we do not see any compelling reason to change the treatment of the projects already set out in 2019 except for Terminal 1 Façade, which has been changed from deliverable to flexible. This is because the T1 sustainability feasibility study may lead to significant changes to requirements of the T1 façade and envelope. Furthermore, in the context of not allowing the additional pro-rata allowance, this will provide flexibility to reallocate allowances in 2025/2026 to projects not yet crystallised. Finally, the Asset Care CSF grouping already has a relatively high level of Deliverables.

### StageGate Process

- 11.72 As part of the 2019 Determination, we introduced the StageGate process, which is intended to improve the regulatory model by allowing for ongoing flexibility for the scope and/or cost of certain projects to evolve throughout the regulatory period, rather than being firmly set in advance. The process involves Dublin Airport, airport users, the Commission, and an Independent Fund Surveyor (IFS) continuing to assess cost developments of projects across their development and construction phases. The output from the process then feeds through to the Commission's final decision on cost allowances for the projects, which will be made after they are complete.
- 11.73 We believe that StageGate has been successful so far. We have not run the process on a quarterly basis as was originally planned but rather whenever Dublin Airport has proposed projects. This approach has worked well as each round tends to have its own specific issues, some projects are more complex than others, and because the IFS time required to report on a project has varied. Furthermore, the stream of projects has been much less than anticipated due to the suspension of most projects. As of July

2022 only two cycles have taken place so far (the T1 and T2 HBS3 projects, and Taxiway W2), with a third IFS assessment currently underway.

- 11.74 The outstanding PACE taxiway projects are significantly interrelated with projects in the updated CIP, such as Taxiway R widening and the Apron/Taxiway rehab. Thus, we now propose that the PACE taxiway projects be brought into the StageGate process. This will allow airfield works to be considered by airfield area rather than segregating them by investment programme, avoiding having one aspect of the works as StageGate and another aspect not.
- 11.75 In its regulatory proposition, Dublin Airport proposes two changes to the StageGate process. The first is that the StageGate allowances be considered collectively. It argues that this would allow flexibility across StageGate projects, thereby maximising efficiency. It also argues that this would be a useful method of dealing with the cost uncertainty resulting from new projects for which there has been limited time to develop project scopes.
- 11.76 The second proposal is the introduction of earlier consultation with airport users, which it believes would assist in ensuring that opportunities and risks are consulted on early. It proposes two additional interim StageGate phases outside the main cycle. These are 'completion of the feasibility stage', and 'completion of the detailed design' of the project. The airport has also proposed that the IFS would only assess the project as it is presented at StageGate 1, as it can be difficult and time consuming to keep track of all changes to the project that occur between StageGate 0 and 1. Finally, it suggests that StageGate be conducted on a quarterly basis going forward, and that Dublin Airport agree a timeline for completing an assessment at the outset of each project assessment with the IFS and the Commission.
- 11.77 In response to Dublin Airport, we note that while reconciling changes to project costings can be challenging, it is an important aspect of the process for airport users to understand what has changed and why. Furthermore, where there is potential overlap between projects, it is important that changes in costs are appropriately allocated to the original project allowances or groupings, to avoid misstatements of cost changes, double counting, or undermining the grouped allowance approach which remains in place for non-StageGate projects.
- 11.78 We also note that the suggested benefits of allowing grouped StageGate allowances, i.e., greater efficiency and flexibility, are already present in the StageGate process, while also incentivising efficiency at an individual project level. Thus, we propose to continue reconciling StageGate projects individually, as we have done with HBS3.
- 11.79 However, we agree with Dublin Airport's suggestions regarding the return to a regular cycle upon conclusion of the current review, its suggestion of two additional phases, and its suggestion that assessment timelines be agreed with the IFS/CAR at the outset of project assessments. For the Sustainability projects, Dublin Airport will need to demonstrate the environmental impact of these as the project scope and outputs crystallise through the design phases.
- 11.80 We propose to make one other adjustment to the StageGate process, which is to allow the Commission to issue a non-binding opinion in the event of disagreement between

Dublin Airport and airport users in relation to a project in the StageGate process. This will help to provide clarity on the Commission's current thinking in the event of such a disagreement, lessening the risk of a project which may be generally supported being held up in the event of minority or unfounded disagreement.

**Table 11.11: Proposed StageGate Projects**

	Asset Lives (Years)	Allowance (€m)
Apron Rehabilitation Programme	20	45.6
Airfield Taxiway Rehabilitation Programme	20	17.8
Second Medium Voltage (MV) Connection Point	5	1.2
Terminal Kerb Security Mitigation*	20	11.2
MV Resilience Substation*	15	51.9
Upgrade to Hold Baggage Sortation Equipment*	15	40.3
Terminal 1 Central Search- Relocation to Mezz Level	15	43.9
Terminal 1 Departure Lounge (IDL) Reorientation & Rehabilitation	15	33.2
Terminal 2 Early bag store and transfer lines	10	31.9
New Pier 5 (T2 & CBP Enabled)	28	292.3
Expansion of US Pre-Clearance Facilities	25	75.4
South Apron Expansion (Remote Stands, Taxiway & Apron)	34	178.6
North Apron Developments- Pier 1 Extension (Module 1) & Apron 5H PBZ	32	206.8
West Apron Vehicle Underpass- Pier 3 Option	50	228.8
Taxiway R widening*	30	6.2
Fuel Hydrant Network Works*	20	29.3
Code E Engine Test Facility*	20	15.5
Surface Water Environmental Compliance	20	91.4
Airport Charging*	15	72.1
Alternate Fuels*	20	1.4
Anaerobic Digestion*	15	8.9
Fixed Electrical Ground Power Phase 3*	15	11.4
Photovoltaic Solar Farm Phase 2*	25	36.6
Terminal 2 Sustainable Upgrade*	15	99.4
Terminal 1 and Campus Sustainability Feasibility*	15	5.8
South Apron Airside Support Centre*	20	10.8
<b>Total</b>		<b>1647.7</b>

Source: Dublin Airport, IFS, CAR Calculations. Real Prices.

\* denotes projects that are proposed new additions since 2019

## Submissions Received and Responses- General Comments

- 11.81 This section details the comments we received from stakeholders regarding Capex, and how we have addressed these in our Draft Decision. Several of the points raised by stakeholders, and outlined below, have already been addressed in earlier in this section.
- 11.82 Ryanair opposes increases in airport charges to facilitate prefinancing of investments, as it believes this to be the responsibility of shareholders. It argues that according to

regulatory economic principles, an airport should recoup these investments when in use and where possible according to their actual use.

- 11.83 Aer Lingus is disappointed with Dublin Airport's proposed approach to Capex, which it views as 'buy now get benefits later'. It argues that the Commission should: re-confirm that it does not support pre-funding; ensure that airlines are not charged for Capex that generates little or no value in the current regulatory period; and ensure that only assets in use can enter the RAB and therefore be remunerated.
- 11.84 Aer Lingus believes that the efficiency adjustments made by the IFS to the 2019 CIP should not be undone. It also questions whether Dublin Airport are properly incentivised to ensure that it only delivers the most cost-effective solutions. Finally, Aer Lingus also opposes any form of risk sharing on Capex.
- 11.85 IATA supports oversight by the IFS of new and updated projects, as well as the continuation of the StageGate process.
- 11.86 Ryanair disagrees with the Commission's assertion that a high degree of consensus was achieved on the 2019 CIP. It argues that while a numerical majority of users supported the projects, this is not the case if the passenger volume thresholds for consensus were applied. It requests that the Commission maintain the requirement adopted for 2021 and 2022 that projects costing more than €4 million, other than those related to safety or compliance, require the agreement of users representing more than 50% of the passenger volume using Dublin Airport. It further argues that no project should enter the RAB or receive an allowance for capital costs until these conditions have been reached. It believes that all other projects should be excluded from the initial allowance but could be triggered later when support is attained.
- 11.87 Ryanair also believes that the timeframe over which 40 mppa capacity would be reached has changed and is likely to be further away from the end of the 2026 regulatory period than originally envisaged. As such, it argues that the timeframe for investments aimed at delivering 40 mppa capacity will similarly need to be updated.
- 11.88 Dublin Airport welcomes the Commission's proposal to reassess the capital allowances and treatment of capital spending as part of its forthcoming regulatory review. It argues that there have been significant changes to the regulatory environment since 2019, (e.g., planning laws), as well as significant construction inflation. It recommends that the Commission consider these factors when setting capital allowances.

### *Response to General Comments*

- 11.89 Our proposed approach took on board the views of stakeholders, for example, we have now expanded the proportion of the CIP included in the StageGate, allowing users greater input into the final outputs and costs of the Capex programme.
- 11.90 In some cases, there is now significantly more detailed cost estimates available for the IFS to assess, particularly for the major projects. Thus, where the IFS costing has moved closer to that of Dublin Airport since 2019, it is not so much a case of previous efficiency assessments being undone as it is the provision of better and more detailed evidence being available.

- 11.91 We do not propose to extend the requirement that Dublin Airport re-consult with users on all projects over €4m. This was always intended as a temporary measure, until the full review was completed. We have also chosen not to introduce any form of ex post inflation adjustment. Finally, in recognition of the potential timeline risks to the programme, we have chosen to profile some of the Capex for longer than the current regulatory period, and to employ triggers for certain larger capacity projects.
- 11.92 The question of pre-funding is addressed more specifically in Section 12. While we agree that ideally the remuneration of an allowed project would align with the timing of delivery, we also note the support of airlines such as Ryanair and Aer Lingus for the delivery of the North and South Apron developments, respectively. In the absence of a degree of pre-funding of these projects, we would not be confident in the ability of Dublin Airport to fully finance the planned investment programme.

### **Sustainability Capex – Stakeholder comments**

- 11.93 ACI notes that Capex which improves energy efficiency and enables airports to achieve decarbonisation is typically more expensive than other forms of Capex and that these investments are largely supported by passengers.
- 11.94 IATA believes that Dublin Airport can maximize its sustainability contribution by ensuring that its infrastructure costs do not impede airlines' ability to invest in new fleets, fuels, and technology. It believes that this can be done by ensuring that green investments are costs efficient and have a strong environmental impact.
- 11.95 British Airways requests that the Commission continue to ensure that any environmental investments made by Dublin Airport are timely, efficient and in passengers' interests.
- 11.96 Ryanair states that Sustainability Capex should be carefully scrutinised to ensure it is justified and that the benefits to users are articulated. It notes that some projects may be capable of generating revenues and that the Commission should account for this. It also recommends that the Commission investigate whether Dublin Airport's sustainability investment projects qualify for State Aid under the European Commission's Guidelines on State aid for climate, environmental protection and energy and this funding source must be considered before including these costs in the price cap.
- 11.97 Dublin Airport argues that in order to achieve its targets and policies on aviation, climate change and sustainable development, remuneration of sustainability related Capex should be accelerated such that this investment does not dilute Dublin Airport's key debt metrics.

### **Sustainability Capex – Commission Response**

- 11.98 Many of the Sustainability Capex projects will enter the StageGate process, where the airlines will have a direct role in ensuring that the projects are efficient and effective.
- 11.99 In response to Dublin Airport, we note that the profiling of remuneration on sustainability projects is intended to align with the likely delivery timeline. We note

that Sustainability projects are at an early phase of design and the precise outputs are not yet fully defined. However, as discussed in chapter 5 of this paper, it is clear that Dublin Airport needs to align with its legal obligations and Irish government/EU policy by investing in sustainability related initiatives.

11.100 We agree that some of these projects are likely to generate significant Opex as well as Commercial Revenue benefits. We have sought to take this into account to a certain extent in our Opex forecasts but would welcome any specific evidence respondents may be able to provide in relation to commercial or cost benefits of projects of this nature. We will consider this point ahead of Final Decision. We note that, given the timeline of the projects, the benefits may be more material in the next regulatory period rather than 2023-2026.

### *Capex Triggers – Stakeholder comments*

11.101 Ryanair argues that if capacity investment is intended to respond to passenger growth then this should be reflected in the use of positive triggers, i.e., Capex should not be allowed until specified conditions have been reached. Furthermore, if there is a downturn, the first reaction should be to slow Capex.

11.102 Dublin Airport is supportive in principle of the use of price cap triggers relating to Capex projects but has significant concerns about the reintroduction of reprofiling triggers during the period 2023-2026.

11.103 IATA supports the use of triggers where they are deemed appropriate.

### *Capex Triggers – Commission Response*

11.104 We propose to use project milestone triggers for €763.9m of Capex, which will ensure alignment between remuneration and project timelines. We do not propose to introduce demand based triggers, largely due to the difficulty in deciding appropriate trigger events.

### *Capex Clawbacks – Stakeholder comments*

11.105 Ryanair disagrees with the Commission's decision not to claw back unspent Capex allowances. While it supports the Commission's decision that unspent capital allowances for 2020-2022 will not enter the Opening RAB, it argues that this still leaves users making duplicate payments towards the cost of these projects in future when work commences.

### *Capex Clawbacks – Commission Response*

11.106 In the first and second interim reviews of the 2019 Determination, the Commission made the decision not to claw back remuneration for unspent Capex. This mechanism was evaluated in full during both of those reviews. The point raised by Ryanair was part of its appeal against the first Interim Review and was not referred back to the Commission. We do not intend to revisit this point in this review.



### ***Capex remuneration and depreciation – Stakeholder comments***

- 11.107 Ryanair asserts that the Commission must ensure that the scale of the proposed Capex increase is appropriate, having regard to affordability and ensuring that current users are not unnecessarily pre-funding capacity.
- 11.108 Ryanair recommends the unitisation of depreciation as a means of ensuring that remuneration of infrastructure is allocated according to use. It believes this approach is especially useful for projects designed to deliver long-term capacity enhancement.
- 11.109 IATA supports the continuation of the annuities approach to depreciation but recommends that the Commission consider unit-based annuities for assets that would have a large unutilized capacity when commissioned.

### ***Capex remuneration and depreciation – Commission Response***

- 11.110 As noted above, the Commission has chosen to continue using an annuity approach to depreciation. We see merit in a unit-based approach to depreciation and have used this approach in the past for the initial years of remuneration of Terminal 2. However, this approach is only appropriate in certain circumstances, in particular where there are no financeability concerns. If we were to use unitisation, the financeability situation discussed in Section 12 would be more acute.

### ***Regulatory treatment of Capex – Stakeholder comments***

- 11.111 Ryanair accepts the principles underlying deliverables but believes that projects greater than €4 million should be subject to enhanced consultation and StageGate processes.
- 11.112 Dublin Airport welcomes the Commission's commitment to providing the flexibility to adjust capital expenditure in response to changing circumstances or user needs while also ensuring sufficient regulatory certainty for Dublin Airport regarding remuneration of efficient costs.
- 11.113 Dublin Airport welcomes the Commission's stated intention to retain its current approach to Capex whereby it will have grouped allowances for different categories of projects allowing Dublin Airport some flexibility in spreading its investment across a series of projects. It argues that this methodology strikes a balance between incentivising efficiencies while allowing for business flexibility and regulatory certainty.
- 11.114 It requests that the designation of Capex projects as Deliverable be kept to a minimum as it believes it is best placed to manage the provision of airport infrastructure in accordance with our airport users' requirements.
- 11.115 Dublin Airport supports the continuation of the StageGate process which was introduced by the Commission in the 2019 Determination.
- 11.116 Dublin Airport welcomes the proposal to subsume outstanding PACE projects into the new CIP. It requests that any projects transferred be cost adjusted to reflect inflation since their original submission.

## Regulatory treatment of Capex – Commission Response

11.117 As discussed above in the Deliverability and Future Reconciliation subsection, we generally agree with Dublin Airport's proposed regulatory treatments which has led to a greater proportion of Capex than previously designated as StageGate. This will allow users greater input on the progression of the Capex programme.

11.118 We also note above that we have elected not to extend the requirement that Dublin Airport re-consult with users on all projects over €4m as this was an interim measure, not an ongoing feature of the regulatory model.

## *Inflation – Stakeholder comments*

11.119 Ryanair has expressed concerns regarding the potential for double counting of inflation in Dublin Airport's project costs. It also questions the need to include large inflation adjustments in its project costs as it is not convinced that inflation will persist at a high level from 2023.

11.120 Dublin Airport has expressed concerns regarding the level of construction price inflation its Capex is experiencing. To address this, it requests that the Commission index the Airports capital costs to a recognised construction price index.

11.121 IATA recognises that construction price inflation will be an important issue in the upcoming CIP period but stresses the importance for the Commission of identifying an inflation measure that best reflects actual inflation while avoiding double counting.

## *Inflation – Commission Response*

11.122 As noted above, we only allow for forecast construction inflation in excess of forecast general inflation. This avoids double counting. We do not propose an additional construction inflation mechanism as described above.

## 12. Financing, Risk, and Financial Viability

12.1 This section examines Dublin Airport's ability to raise finance in a cost-efficient way to fund the development of the airport in the interests of airport users. Having finalised the individual building blocks and arrived at an initial regulatory settlement, we then consider, in a practical manner, the anticipated impact of the regulatory settlement on the regulated entity's financial metrics and key ratios.

12.2 We propose to adjust the regulatory settlements to enhance financeability, in order to protect against reasonable downsides. We propose to do so by targeting Net Debt/EBITDA of less than 5.0x. To achieve this, based on our draft approach to the other building blocks, we have:

- Provided for a significant degree of pre-funding of the allowed trigger projects, with 80% of the capital cost allowance to enter the price cap once the relevant project has received full planning permission and the project is on-site.
- Accelerated a total of €60.9m of future depreciation into the current review period 2023-2026.

12.3 Table 12.1 shows the impact of the adjustment.

**Table 12.1: Price Caps before and after Financeability adjustment**

	2023	2024	2025	2026
<b>Before Adjustment</b>				
Base Price Cap	€8.00	€8.07	€7.93	€8.35
Price Cap with expected triggers	€8.00	€8.38	€8.50	€9.29
<b>After Adjustment</b>				
Base Price Cap	€8.68	€8.60	€8.29	€8.48
Price Cap with expected triggers	€8.68	€8.91	€9.02	€9.81

Source: CAR

12.4 As explained in Section 5, although on enactment of the ANTB it will no longer be a direct statutory requirement for us to enable daa to operate Dublin Airport in financially viable way, we will continue to consider the question of financeability. Should there be a practical challenge in raising the level of debt implicit in the regulatory settlements, Dublin Airport's ability to progress the planned investment programme would be reduced. This would lead to a situation where the interests of future users may harm due to the non-progression of projects which we have assessed as being in their interests.

12.5 The interests of current users may also be harmed by the inclusion within the price cap calculations of allowances for projects which then may not be progressed within the period. Furthermore, a large-scale clawback of allowances for unspent Capex in the subsequent regulatory period may be challenging to reconcile with facilitating the efficient and economic development of Dublin Airport.

12.6 As in 2019, we commissioned Centrus to advise on financeability by reviewing the initial building block pricing outcome and, if warranted, suggest adjustments to

enhance the financeability of the price control. The draft Centrus report is published alongside this document.

## CIP Programme and Capital Requirements

- 12.7 For a given cost of capital, the key driver of the forecast financial metrics is the allowed level of investment. Dublin Airport is proposing an ambitious investment programme for 2023-2026. Investment will need to be financed from a mix of debt and retained earnings. Equity investment, other than retained earnings, is not available to Dublin Airport.
- 12.8 We have modelled the profile of capital expenditure based on the allowed investment programme. This can be observed in the 'Capex Profile' tab of the model. As set out in Section 11, we propose that most of these projects are allowed for in the base price cap. We align the forecast expenditure on these projects with the remuneration profile described in Appendix 2. That is, we assume that the remaining 'Core' allowances for this regulatory period are fully spent by 2026. In most cases we make a similar assumption for the commercial projects and capacity projects, with the exception of a number of the carparking projects as described in Appendix 2. We assume the new Sustainability projects are fully delivered by 2027.
- 12.9 We also proposed that certain major projects would be triggered, rather than included in the base price cap. The major trigger projects are not expected to be delivered until 2027-2029. Most of the expenditure on these projects is thus not expected to occur until after the regulatory period. However, particularly for major projects, a material proportion of the expenditure will be required in this regulatory period if the projects progress to the planned timeline. Thus, it is necessary to account for this in our cash flow and financial ratio forecasts.
- 12.10 We do so by estimating an overall profile of expenditure relative to project completion for the potential trigger projects in the model. This is based on the project-level profiles assumed by Dublin Airport, weighted by project allowance, which we also cross-checked with expenditure profiles for recently delivered major projects. The profile is laid out in Table 12.2 below, where Year 'Y' is the planned year of project completion. For example, if a project is planned to be delivered in 2029, we expect that 18.5% of the allowance is spent in 2026, 21.3% in 2027, 28.6% in 2028, 27% in 2029, and 4.5% in 2030.

**Table 12.2: Profile of Triggered Project Expenditure Relative to Project Completion**

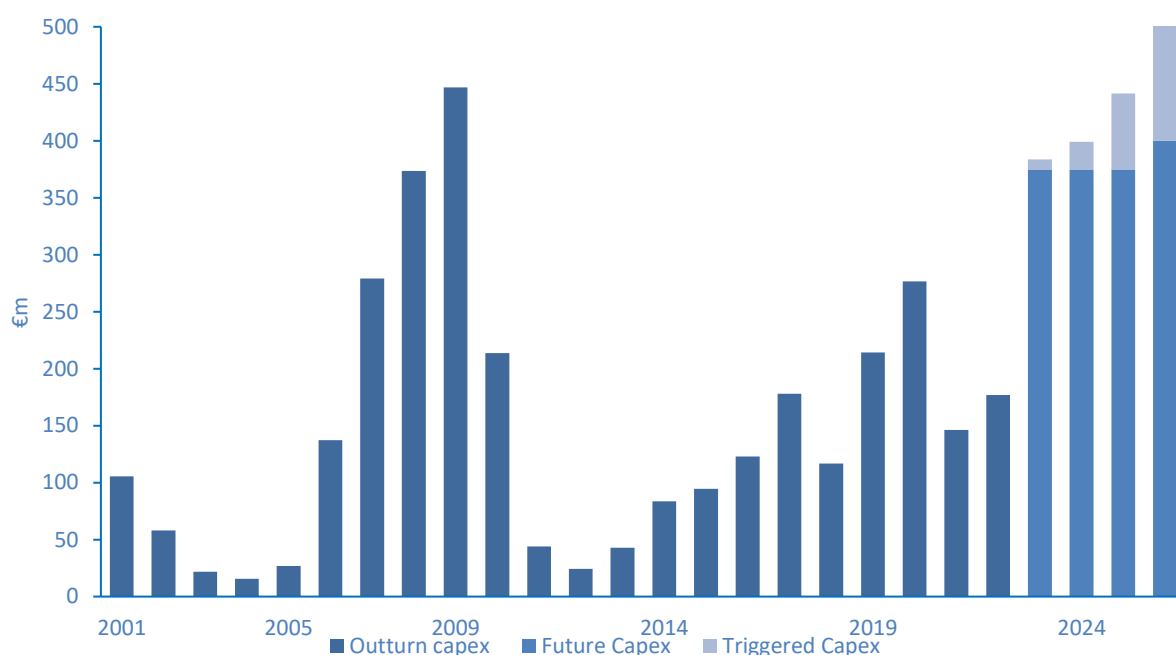
Y-3	Y-2	Y-1	Y	Y+1
18.5%	21.3%	28.6%	27%	4.5%

Source: CAR Calculations

- 12.11 Overall, this leads to a total forecast Capex spend of just under €1.8bn in real terms, or €2bn in nominal terms, over 2023-2026. This is similar to the quantum assumed by Dublin Airport, which is €2.1bn, once the efficiency adjustments identified by the IFS are implemented and given that Dublin Airport has used nominal prices.
- 12.12 Dublin Airport has not previously invested this level of capital for a sustained period. Only at the peak year of T2 construction, in 2009, was annual Capex broadly in line

with spending €2bn over 4 years, as now proposed.

**Chart 12.1: Capital Expenditure, 2001-2026**



Source: Dublin Airport, CAR Calculations. Real Prices.

- 12.13 The commonly referenced ‘lumpy’ nature of airport investments can be plainly observed in this chart. This can lead a mismatch in the short term between cash flow and the expectations of investors, given that the depreciation profile for a major project usually allows for the recovery of associated costs over the full life of the asset, whereas capital expenditure is linked to the delivery of the asset over a much shorter time period.
- 12.14 For example, when T2 (which has a 50-year asset life) was constructed over 2008-2010, the high level of debt combined with a sharp fall in passenger numbers led to a short-term deterioration in financial metrics. Ultimately, T2 has since been absorbed into the cost base, and is a key asset contributing to the facilitation of 33m passengers by 2019 at a high level of service. This level of passenger traffic also allowed Dublin Airport to return to strong financial performance, with FFO/Net Debt increasing to 42.5% by 2019. As per the above chart, Dublin Airport now proposes another expansionary phase of investment. This investment is intended to facilitate the airport in growing to 40m passengers per year. Thus, the financial ratio benefits of some of these projects are likely to materialise in future regulatory periods, when the new Capex requirement is lower, and the RAB and thus capital costs (all else equal) are larger.
- 12.15 We consider that there is significant uncertainty in relation to the planned timelines for some projects proposed by Dublin Airport. As set out in Section 11, we thus propose to use triggers for a number of projects. There is also a likelihood that not all other projects will progress to the planned timeline, due to factors such as planning, or construction related delay. In that scenario, Capex may be lower than currently anticipated over the period 2023-2026.

## Centrus Assessment

12.16 Centrus' Approach to assessing Financeability is laid out in detail in its report. The approach can be summarised as:

- Assessing the ratings methodologies and credit rating reports from S&P (who rate daa), and other ratings agencies.
- Considering the impact of events which have taken place since the 2019 Determination and their subsequent effects on same, such as the covid-19 pandemic, the global energy crisis, and other major macro events.
- Asking the Commission to test our price cap model to assess the likely impact of various adverse outcomes on the forecasted financials and key financial ratios of the regulated entity.
- Examining market data regarding new debt issuance and pricing levels for relevant traded bonds along with consideration of funding conditions in other debt products e.g., private placements.

12.17 Thus, a key aspect of the financeability analysis is to forecast the financial ratios for the regulated entity under the proposed regulatory settlements. In the model, we forecast and display the following ratios based on both real and nominal calculations:

- FFO/Net Debt
- Net Debt/EBITDA
- FFO: Cash Interest
- EBITDA/Interest
- Free Operating Cash Flow/debt
- EBITDA margin

12.18 To forecast the ratios, we use our current forecast of Dublin Airport's anticipated 2023 opening net debt position of €948m. We then model the cashflows expected to be generated under the proposed regulatory settlements. For the ratio analysis, we use nominal prices for both the Capex profile described above, and the price cap and building block inputs. These are converted from real prices based on our inflation forecasts for 2023 to 2026, which, consistent with the CEPA draft Opex forecasts, aggregate forecasts from the ESRI, and the IMF April 2022 forecast. We note that, given both Capex and earnings are inflated by the same indices, if inflation were to vary from forecast, these would approximately net off. We consider it more appropriate to use nominal prices for this analysis, as this is how ratings agencies and investors would likely view the financials and key ratios.

12.19 We calculate the interest payments based on the nominal cost of debt, both embedded debt and the forecast new debt requirement. For the purposes of cashflow analysis, this provides for a more realistic profile than using the real cost of debt and the

notional gearing assumptions underpinning the WACC. This is relevant in particular to generating an accurate FFO/Net debt ratio, and also the other ratios in which interest is the denominator.

- 12.20 In line with Dublin Airport, we assume a tax rate of 12.5%. We assume that dividends are payable in the base case, in line with Dublin Airport's assumption. However, as in 2019, when considering reasonable downside scenarios, we assume that dividend payments would be suspended in order to protect Dublin Airport's target credit rating while enabling allowed investment in the business.
- 12.21 Given that Dublin Airport's investments will be financed from a mix of debt and retained earnings only, we assess that negative net cash flow equates to a requirement to raise new debt.
- 12.22 We provided Centrus with our initial building block outcome based on the above modelling approach, including the 'A' triggers as discussed in Section 11, but with these set to remunerate 50% of capital costs. The model produced ratios as set out in Table 12.2.

**Table 12.3: Financial Ratios under Initial Building Block outcome**

	2023	2024	2025	2026
FFO: Net Debt	15.1%	15.4%	15.5%	15.4%
Net Debt/EBITDA	5.5	5.51	5.55	5.65
FFO: Cash Interest	6.6	8.3	9.9	11.4
EBITDA/Interest	8.0	9.7	11.5	13.1
FOCF/debt	-19%	-15%	-14%	-16%
EBITDA Margin	41%	43%	46%	49%

*Source: CAR Calculations. Nominal Applied forecasts*

- 12.23 Centrus' conclusions and advice, as set out in their report, are:
- Standard and Poor's (S&P) do not provide a credit rating for the regulated entity (as opposed to daa group). But, by considering the components of its ratings methodology for Business Risk Profile (BRP), it is reasonable that the regulated entity's BRP may be assessed as Strong. Furthermore, analysis of the forecast profitability based on the financial ratios produced by the Commission's financial model may illustrate that profitability would not decline to a level that would likely lead to a downgrade of this assessment, as long as the regulatory regime itself remains stable.
  - Administering the cash flow/leverage analysis that S&P apply in determining their assessment of Financial Risk Profile (FRP), Centrus conclude that an indicative assessment of Dublin Airport's FRP would not likely deviate from the current published assessment of Intermediate for daa plc.
  - Based on Centrus' assessment that Dublin Airport's indicative BRP and FRP may likely be interpreted as in line with that of daa plc's published assessments, it is reasonable to conclude that funders may also assess the Anchor rating of the regulated entity as consistent with that of daa plc i.e. bbb+.

- It is also likely that many of Dublin Airport's funders would give consideration to the government support uplift which could place its overall credit rating in the 'A-' category. These are rating levels which could be considered to support continued access to debt markets over the pricing period.
- In order to understand debt funders' likely requirements for the appropriate credit rating and financial thresholds for the regulated entity over the price determination period, Centrus also undertook a level of market analysis. They conclude that based on current market conditions, a minimum of a BBB+ credit rating may likely be required to provide reasonable level of comfort in accessing debt markets. Similarly, given the aviation industry's recovery path, Centrus anticipate that financial ratios consistent with FFO / Net Debt in the mid-teens and Net Debt / EBITDA of less than 6.0x is likely to be sufficient to access debt markets on the assumption that debt funders' requirements for ratios return to pre-pandemic levels.
- The Commission is setting a price cap for a 4-year period, and market conditions remain subject to change. Therefore, there is a risk that funder appetite at these levels may not persist over the full pricing period during which Dublin Airport will need to raise new debt.
- Similar to the advice in the 2019 report, Centrus believes that in order to increase confidence that Dublin Airport should be able to raise the full requirement for c.€1bn of new debt to fund a significant programme of capital expenditure forecast over the pricing period, CAR may consider enabling a path to Dublin Airport achieving an FFO/ Net Debt above 15%, and a Net Debt / EBITDA of less than 5.0x.
- In the later years of the forecast period, this would take account of both company specific adverse scenarios and a potentially deteriorated debt market, while also moving it closer to the financial ratios of many of the airport operators with government ownership in its peer group.
- Any proposed move from a target FFO / Net Debt from 13% to above 15% and to a Net Debt / EBITDA target move from less than 6.0x to below 5.0x, needs to be carefully balanced to ensure users are not being asked to pay more for financial viability than is required. The Commission has a number of levers to enable this path, for example accelerated depreciation, consideration of the timing or size of Capex, etc.
- Although the price determination will be for the period 2023 to 2026, Centrus noted that the Commission has a demonstrated history of proactively reacting in times of crisis, and if this were to be the case in the future, and CAR reacted in a similar manner to the way they have before, financeability could potentially be reassessed.
- Similarly, all else equal, the Commission could give consideration to re-evaluating financeability midway through the period to examine if the financial viability adjustment allowed at the start is still required towards the end of the period. If it is not required, it could be then removed from the price for the final years. This would provide confidence to debt funders at the outset of the price determination



period that the forecast capital expenditure programme will remain financeable if Dublin Airport performs in line with the base case scenario but could also help ensure that passengers do not overpay if the out-turn performance due to factors beyond Dublin Airport's control does not warrant the allowances made. It is important that funders have certainty and hence the removal (to work from a funder perspective) would need to be structured in such a way as to only be removed if ratios were being met and forecast to be met over the period. For example, this could be implemented as a form of reverse trigger which is used following an assessment for delays in capital expenditure which in turn reduces the overall debt requirement over the remaining period.

12.24 Table 12.4 summarises the categorisation of cash flow/leverage analysis for low volatility companies.

**Table 12.4: S&P Cash Flow/ Leverage Analysis Ratios for Low Volatility Companies**

	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest (x)	EBITDA/interest (x)
Minimal	35+	Less than 2	More than 8	More than 13
Modest	23-35	2-3	5-8	7-13
Intermediate	13-23	3-4	3-5	4-7
Significant	9-13	4-5	2-3	2.5-4
Aggressive	6-9	5-6	1.5-2	1.5-2.5
Highly Leveraged	Less than 6	Greater than 6	Less than 1.5	Less than 1.5

Source: S&P

## Application of Centrus' Advice

12.25 We propose to follow Centrus' advice in relation to the Financeability of the regulatory settlement.

12.26 We note that the financials generated by building block outcome would likely be consistent with retaining a rating of BBB+, while the outcome whereby FFO/Net Debt is in the mid-teens and Net Debt/EBITDA is less than 6.0x, is likely to be sufficient to access debt markets. However, we also note Centrus' assessment that there is a risk that funder appetite at these levels over the regulatory may not persist and/or fully return to pre-pandemic levels. There is also a risk of company specific adverse scenarios, which may result in financial underperformance relative to our building block targets. To protect against potential downside scenarios, Centrus advise us to enable a path to Dublin Airport achieving an FFO/ Net Debt above 15%, and a Net Debt / EBITDA of less than 5.0x.

12.27 We first assess the base case scenario. If our building block targets were met (or exceeded) overall, we assess that Dublin Airport should be able to access the debt markets to raise the required level of debt while also paying a dividend. As per Table 12.2, the FFO/Net Debt ratio is in the mid-teens and Net Debt/EBITDA is less than 6.0x.

12.28 We then consider downside scenarios. Due to the proposed triggers in the price cap for the period, we consider two separate scenarios:

- A 'triggered' scenario where, as in the base case, the triggered projects progress to the

planned timeline and Capex totals €2bn in nominal terms as described above.

- An 'untriggered' scenario, where the new triggered projects<sup>38</sup> are delayed and Capex is correspondingly lower at €1.7bn (nominal).

12.29 That is, as per the base case scenario, if the projects progress to the planned timeline, the price cap will increase due to the associated triggered allowances. On the other hand, should the triggered projects all be delayed such that none have commenced construction by 2026, the price cap would be lower but so too would capital expenditure. These scenarios are the two ends of a spectrum in relation to triggered project delivery and so other scenarios can be expected to fall within that spectrum (for example, if one triggered project was delayed and others were not, or all projects were delayed by one year).

12.30 As these are testing downside scenarios, we assume that dividends are not paid as outlined above. Table 12.5 sets out the ratios.

**Table 12.5: Untriggered and Triggered base ratios for downside testing**

	2023	2024	2025	2026
<b>Untriggered Scenario</b>				
FFO: Net Debt	15.1%	15.8%	16.2%	16.9%
Net Debt/ EBITDA	5.5	5.4	5.3	5.2
<b>Triggered Scenario</b>				
FFO: Net Debt	15.1%	15.7%	16%	16%
Net Debt/ EBITDA	5.5	5.4	5.4	5.4

Source: CAR. Nominal Applied forecasts

12.31 It can be observed that the consequent higher retained earnings across the period reduces the requirement to fund the allowed investment through new debt and thus enhances the financial metrics. While the FFO: Net Debt ratios align with Centrus' advice, being above 15%, the Net Debt/EBITDA ratios are higher than 5.0x in each year. We thus assess that, based on Centrus' advice, an adjustment to the regulatory settlement to enhance its financeability is warranted. At a high level, there are two options which we consider:

- Reduce the allowed level of Capex within the period 2023-2026. If, for example allowed Capex were to be c15%-20% lower in the above scenarios, this would bring Net Debt/ EBITDA to below 5.0x.<sup>39</sup>
- Increase the regulated revenue stream within the period, which would improve the Net Debt/EBITDA ratio by simultaneously increasing EBITDA and reducing net debt. This could be done through accelerated depreciation and/or adjustments to the triggering mechanisms.

12.32 In considering how we might optimally increase the regulated revenue stream, we note Centrus' comment that we consider '*re-evaluating financeability midway through the period to examine if the financial viability adjustment allowed at the start is still required towards the end of the period*'. Given that the Capex requirement will be

<sup>38</sup> Not including the pre-existing North Runway triggers, given that the project will already be operational this year.

<sup>39</sup> The exact amount depends on which allowances are excluded/reduced, due to different asset lives and remuneration profiles.

lower if triggered projects are delayed, including a financing adjustment solely in the base price cap may turn out to be unnecessary. This would be sub-optimal, as it could lead to current passengers paying for a financing adjustment which is ultimately unnecessary. However, neither would it be appropriate to set a direct trigger in relation to the requirement for a financing adjustment; this may create a perverse incentive to show poorer financial performance in order to attain or retain the financing trigger. However, it is possible to do so indirectly through the use of the 'A' triggers, which will only be added to the price cap once the project is on-site and thus the associated Capex is being incurred.

- 12.33 We therefore consider how best to combine the quantum of capital cost remuneration included in the 'A' triggers with accelerated depreciation in order to achieve the target advised by Centrus. This depends on the relative cost/remuneration profile of trigger projects compared to untriggered projects, as well as other factors such as the allowed WACC. Based on our draft proposals for these building blocks, we calculate that increasing the value of the 'A' triggers from 50% to 80% best converges the triggered and untriggered scenarios. Converging these scenarios avoids overstating the required quantum of pre-funding in the 'A' triggers, or the quantum of accelerated depreciation. We then make up the required difference with accelerated depreciation, which is laid out in Table 11.1 in the capital costs section. The total amount of accelerated depreciation required is €60.9m in real prices, which equates to 2% of the future RAB from 2027 and beyond.
- 12.34 Thus, with a combination of 80% of the capital costs of triggered projects entering the price cap the year after construction commences, and accelerated depreciation, Net Debt/EBITDA is 4.90 or less in each year under both the 'Triggered' and 'Untriggered' scenarios. This has the added benefit of further improving the key FFO: Net Debt ratio, from 17% in 2023 to close to 18% in 2026.

**Table 12.6: Core Ratios, Targeting Net Debt/EBITDA of less than 4.90**

	2023	2024	2025	2026
<b>Base Scenario</b>				
FFO: Net Debt	17.02%	17.63%	17.66%	17.96%
Net Debt/ EBITDA	4.89	4.83	4.90	4.89
<b>Scenario with expected triggers</b>				
FFO: Net Debt	17.06%	17.42%	17.80%	17.80%
Net Debt/ EBITDA	4.90	4.90	4.86	4.90

Source: CAR. Nominal Applied Forecasts

- 12.35 While we consider that there is a significant prospect that Capex may be lower than the above scenarios in any case, due to programme delay, our draft position is that nearly all projects in the CIP are in the interests of airport users, provided that passenger numbers also broadly align with our forecasts. We consider that this increase in the regulated revenue stream to meet the target is not disproportionately high, relative to disallowing or reprofiling more of these projects.
- 12.36 We prefer accelerated depreciation to a methodology which would simply increase the price cap, because while the former also leads to higher Airport Charges in the current period, users should benefit from the infrastructure at relatively lower cost in future periods. We are proposing to accelerate €60.9m of depreciation into the period and to

increase the size of the 'A' triggers to 80% of capital costs (from the initially considered 50%), to achieve more favourable financial ratios to underpin the rollout of the CIP.

### Downside Scenarios

12.37 Achieving the above ratios requires Dublin Airport to achieve our targets for Opex and Commercial Revenues, albeit on a net basis; for example, outperformance in relation to Commercial Revenues could be used to fund underperformance in Opex (as occurred over 2015-2019), and vice versa (as occurred over 2010-2014). We aim to set challenging but achievable targets.

12.38 Nonetheless, as noted and investigated by Centrus, there is a risk of company specific downsides which, if they were to materialise, may prevent Dublin Airport achieving the ratios. We have considered the sensitivity of the ratios to a number of different downsides, and how robust they are where we target Net Debt/EBITDA of less than 5. It is also important to consider the likelihood of such an event materialising, and the degree to which it is within the control of Dublin Airport and/or the effectiveness with which Dublin Airport could respond to it.

12.39 The model allows for testing of the following downsides:

- Passenger numbers overforecast
- Opex underforecast
- Commercial Revenue overforecast
- Capex overspend
- Cost of new debt increase

12.40 Of these downsides, we consider that passenger numbers not materialising as forecast is the most significant, with reference to impact, likelihood, and ability of Dublin Airport to control and/or respond. Table 12.6 sets out the impact of passenger numbers being 10% below our forecast in each year 2023-2026.

**Table 12.7: Core Ratios, Passenger Traffic -10% in Each Year**

	2023	2024	2025	2026
<b>Base Scenario</b>				
FFO: Net Debt	14.7%	15.1%	14.9%	15.1%
Net Debt/ EBITDA	5.6	5.6	5.8	5.8
<b>Scenario with expected triggers</b>				
FFO: Net Debt	14.7%	14.9%	15.2%	15.2%
Net Debt/ EBITDA	5.7	5.7	5.7	5.7

Source: CAR. Nominal Applied Forecasts. Includes Year-on-Year compounding effect.

12.41 This assumes that Dublin Airport continues to spend the forecast level of Capex. Even under that assumption, given that we have targeted Net Debt/EBITDA of less than 5 with our centreline traffic forecast, FFO: Net Debt stays comfortably above 13%, while Net Debt/EBITDA stays below 6.0x in the event of a 10% downside.

- 12.42 Such a scenario would likely be accompanied by a compounding reduction in some Commercial Revenues, but an offsetting reduction in Opex would also be achievable. Furthermore, if passenger numbers were to be consistently below the forecasts in this manner, the immediate need for some of the projects in the CIP would reduce, thus reducing the debt requirement and improving the ratios. In this scenario, the interests of future users would not be significantly harmed by postponing certain aspects of the CIP.
- 12.43 A 10% downside relating to Opex or Commercial Revenues has a similar impact to the passenger traffic scenario. However, we consider these scenarios to be both less likely and more within the control of Dublin Airport than a traffic downside, particularly on a net basis, i.e. when considering Opex, Commercial Revenues, and passenger numbers simultaneously.
- 12.44 We consider that a Capex overspend at programme level is unlikely, given that, as set out above, we consider that the timelines for delivering some of the projects remain ambitious. However, in the event of a 10% Capex overspend in each year 2023-2026, the FFO/Net Debt ratio stays above 16%, and Net Debt/EBITDA stays below 5.5x.
- 12.45 The impact of a cost of new debt increase is relatively small.
- 12.46 As set out in Section 6, it should be noted that we are seeking to establish regulatory settlements which are robust and remain aligned with our Statutory Objectives in the context of reasonable changes relative to our forecast expectations. We are not seeking to make regulatory settlements which would be robust to all possible scenarios, such as the level of downside risk which materialised in 2020/2021. As a result of the Covid-19 pandemic, it was necessary to re-open the 2019 Determination and revise the regulatory settlements for each of the years 2020-2024. Should such a scenario be repeated, we would expect a swift reaction from Dublin Airport to reduce costs and we would also expect that it would be necessary to carry out an Interim Review.

## Issues Paper Responses

### Loss Recovery

- 12.47 ACI argues that Dublin Airport's COVID-19 related losses should not be borne by the airport, arguing that where economic regulation does not compensate for exceptional circumstances, loss compensation should be considered, and that not doing so would have a negative impact on investors perception of the Airports riskiness. ACI proposes that the Commission make an adjustment to the RAB to allow for the recovery of Covid-19 related losses
- 12.48 Dublin Airport requests that the Commission put in place measures to address the losses which occurred during the COVID-19 years, and suggests that this should take the form of a RAB reconciliation.
- 12.49 IATA argues that there is no justification for a loss recovery adjustment, as it argues that Dublin Airport has always been remunerated for the risk it bears, and that the Commission has already intervened to assist the airport.

12.50 Aer Lingus is not in favour of loss recovery as it believes that since the Airport reaped the benefits of excess profits from traffic between 2015 and 2019 then it should also bear the downside risk. It also argues that due to its strategic importance, the Irish Government would not allow the airport to fail.

### *Commission Response*

12.51 As set out in Section 3, we have already intervened such that Dublin Airport's exposure to Covid-19 related losses has been reduced, which has compensated Dublin Airport for these circumstances. We previously estimated the value of this at €220m over 2020-2026, although given that passenger numbers have quickly returned in 2022, the final value will now likely be higher (as the higher price cap is being recovered from more passengers than was anticipated).

12.52 As proposed in the Issues Paper, our approach to this review is forward looking, however the remaining impact of Covid-19 is implicit in our analysis; if opening net debt forecast for 2023 had been in line with 2020 opening net debt of €600m, there would likely be no requirement for the financing adjustments set out above and the price cap would be lower. Aer Lingus and IATA are correct that Dublin Airport previously benefitted significantly from the volume risk allocation over 2015-2019, as set out in Section 10. We do not propose to include explicit further recovery of historic losses.

### **Future Risk**

12.53 Dublin Airport argues that the Commission should acknowledge that its forecasts contain risk of not turning out as planned and that it is crucial that fair and varied sensitivities on all building block assumptions are reviewed when determining a financially robust price cap.

12.54 IATA believes that depreciation acceleration would be an acceptable mechanism, provided it is forward looking, but that it must ensure that it does not dampen demand.

12.55 Ryanair does not believe that depreciation acceleration is an acceptable mechanism, as it believes this runs counter to the principle of user pays, and that any response to financing difficulty should be to slow the capital program.

### *Commission Response*

12.56 In response to Dublin Airport we have considered sensitivities as described above, and in following the advice of Centrus, have built in a financing adjustment to allow for the price control to remain robust to reasonable downsides. We have done this by accelerating depreciation from later periods, and by allowing for a significant proportion of Capex to be remunerated in the 'A' triggers.

12.57 We acknowledge Ryanair's view that a slowing of Capex delivery should be considered if the airport faces a financing difficulty. We also expect the airport to consider this in a downside scenario. However, we consider that in the context of a minor downside on passenger numbers, and where they are still forecast to grow subsequently, proceeding with most of the allowed investment programme would likely be in the

interests of future airport users. As per Centrus' advice, we also note that debt funders would likely consider such potential downsides, which means that they are relevant even if they do not subsequently materialise.

- 12.58 We agree with Ryanair that, ideally, remuneration of capital costs should occur strictly on a 'User Pays' basis. However, as set out above, we also consider that progressing with the allowed investment programme aligns with the interests of users. We note that airlines generally supported the provision of infrastructure relevant to their operations; Ryanair supported not only the North Apron project, but also module 2 of this project which was not proposed by Dublin Airport for the current period. Where there is potential conflict between interests or goals, these must be reconciled in a proportionate manner. We consider that the financing adjustment set out above is not so harmful to the interests of current users that disallowing a material proportion of Capex from the current period would be superior. However, we are open to specific views that stakeholders may have on this point.

### Financial Ratios

- 12.59 Dublin Airport has argued that the Commission should determine a price cap which enables an FFO/Net Debt ratio of >15% and a Net Debt/EBITDA ratio of <4, which would then be sufficient to achieve a minimum credit rating of BBB+

### Commission Response

- 12.60 As noted above, we propose to follow Centrus' advice on the target core ratios. This aligns with Dublin Airport's position in relation to FFO/Net Debt. We do not see any justification to target Net Debt/EBITDA of less than 4.0x, in the proposed expansionary investment phase. All else equal, this would likely require a much more substantial financing adjustment. In such circumstances, making such an adjustment may no longer be proportionate as opposed to delaying an amount of the allowed Capex programme beyond 2026.

### 13. Quality of Service

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- 13.1 The Quality of Service (QoS) system is in place to incentivise an appropriate balance between providing airport services at an efficient cost and meeting a suitable service quality for airport users (passengers and airlines).
- 13.2 Originally implemented in 2009, the QoS system incentivises Dublin Airport to maintain and improve its performance in relation to metrics which are important to airport users, through both financial and reputational incentives.
- 13.3 As part of the original 2019 Determination, we reviewed the existing 12 measures to assess whether they were still in line with airport user requirements. Each measure had a defined level of revenue at risk, with performance assessed and reported on quarterly.
- 13.4 A number of changes were subsequently made in 2019. The general approach to the development of the QoS system was to first define a set of desired outcomes, and then use this to specify appropriate measures. Identifying the outcomes at the outset aided us in selecting appropriate and sufficient measures to fulfil those outcomes. Measures were then proposed, taking account of the passenger forecast, the capital investment plan, targets at peer airports, whether variation should be allowed across terminals, the trade-off between cost and QoS, types of incentives, the appropriate financial incentive for different measures, and finally the overall revenue at risk. Performance against the targets is regularly published.<sup>40</sup>
- 13.5 A key development was the establishment of a Passenger Advisory Group (PAG), consisting of members from a range of organisations spanning the diversity of passengers at Dublin Airport.<sup>41</sup> Feedback from the PAG was used to refine the existing measures in 2019 and to introduce 10 new ones. Since the publication of the Issues Paper, we have held two meetings of the PAG to discuss our initial thinking on the QoS system to apply for 2023-2026. Notes from these meetings are published on the PAG page on our website. In this review we are proposing some adjustments to certain metrics, based primarily on feedback from the PAG and some suggestions from Dublin Airport. Following the receipt of responses to the Draft Decision, we will meet with the PAG again before making our Final Decision.
- 13.6 Following the onset of COVID-19, we suspended financial adjustments associated with service quality breaches for 2020 and 2021. Reporting and publication of performance continued, where possible. For 2022, a limited scope financial adjustment system was reintroduced.
- 13.7 In the Issues Paper, we proposed that a broader QoS scheme would be reinstated from 2023. This would draw on the scheme outlined in the 2019 Determination, adjusted where appropriate for developments following the pandemic, for example, new information including recent performance, the views of stakeholders and the PAG on changes in passenger requirements. As set out below, this is the approach we still propose to take. The QoS scheme can broadly be split into four categories which are

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<sup>40</sup> <https://www.aviationreg.ie/regulation-of-airport-charges-dublin-airport/quality-of-service-.820.html>

<sup>41</sup> For further information on the PAG, please see:

<https://www.aviationreg.ie/regulation-of-airport-charges-dublin-airport/passenger-advisory-group.874.html>.



addressed in turn:

- Wait times at central search (security).
- Wait times for passengers requiring additional assistance (PRMs).
- Passenger satisfaction scores, based on survey data on a range of aspects of the airport experience.
- Asset uptime and availability.

13.8 In summary, we propose the following:

- The targets for queue times at security will be in line with the original 2019 Determination.
- The metric for PRMs will be adjusted to better capture the full PRM experience. The targets will be updated to reflect the up-to-date SLA between Dublin Airport and the service provider.
- The metrics and targets for passenger satisfaction scores will in most cases be aligned with the 2019 Determination, with some minor adjustments. As a change from 2019, we propose that the system will also include bonuses for outstanding performance in relation to passenger satisfaction, rather than being solely a rebate-based system.
- Asset uptime metrics will be in line with the original 2019 Determination, with some minor adjustments to the targets based on recent performance.

### **Submissions to Issues Paper on Quality of Service- General Comments**

13.9 Aer Lingus and IATA express support for the proposals outlined in the Issues Paper, with some exceptions. Both consider that the use of the word ‘penalties’ is misleading and is suggestive of a punitive measure, when it should be viewed as a partial refund to airlines for services that were not delivered. IATA suggests the alternative term “rebates”, while Aer Lingus suggests “repayments”.

13.10 IATA states that the measures and associated targets may need to be reviewed to ensure that they are in line with service quality expectations, and that they are accurately measuring performance.

13.11 Ryanair agrees that a broader QoS scheme should be reinstated, and that the 2019 system represents a good starting point. It also recognises that there may be adjustments required to reflect changing processes or passenger expectations.

13.12 Dublin Airport is also in favour of the reinstatement of a broader QoS scheme, but states that caution is required as well as consideration of both changing passenger needs and the expectations of the airport. It agrees that the 2019 system represents a good starting point for this review. It asks that we work closely with the airport when considering the metrics to ensure incentives and outcomes are aligned. In its view, the metrics in the 2019 regime should first be reviewed to ensure that the most important drivers are included. This should involve a review of all targets to ensure that they are challenging but realistic.

- 13.13 Dublin Airport also suggests that there should be increased reporting on metrics that do not have penalties which would allow for monitoring of metrics which are important to the passenger experience but where penalties are not appropriate as performance is dependent on a third party. It asks that any targets for new metrics are discussed and propose an initial period of monitoring scores is implemented prior to setting a target.

#### *Commission Response*

- 13.14 We note the general support for using the 2019 system as a starting point and considering the merits of any changes from there. This aligns with our proposed approach as outlined below.
- 13.15 We agree with both Aer Lingus' and IATA's comments regarding the use of the term 'penalties'. It implies a punitive measure rather than a partial refund for underdelivery of services. The triggering of a downward adjustment simply results in a lower price cap, rather than constituting non-compliance with the determination. Therefore, we have adapted the language to 'adjustments' or 'rebates'.

#### *Nature of Financial Incentives*

- 13.16 Aer Lingus, IATA, and Ryanair object to the use of bonuses to incentivise performance. IATA states that the level of service paid for through charges should be provided without the necessity for bonuses. Aer Lingus and Ryanair state that outperformance should not be incentivised as there is no benefit to providing a service level beyond what is required.
- 13.17 Dublin Airport states that both rebates and bonuses should be considered for inclusion in the QoS system. It argues that this encourages outperformance in the short term which then becomes the normal level of performance in the long term. It also highlights a variety of airports and regulated entities that use such a combination including Heathrow, Aena, Aéroports de Paris, Aeroporti di Roma and Ofgem. It states that at Heathrow, airlines are in favour of this scheme as it has been successful at incentivising the desired performance. The system used by Ofgem is designed to encourage innovation as well as delivering the appropriate outputs which is something that Dublin Airport suggests could be a valuable tool as part of the QoS scheme. Dublin Airport considers that survey metrics are particularly suited for a bonus scheme.

#### *Commission Response*

- 13.18 We agree with the airlines that, in certain cases, incentivising performance beyond the standard required is likely to be inefficient from the perspective of balancing cost and quality; for example, a security queue target of at or close to zero or an asset uptime target of 100%. However, we also agree with Dublin Airport that, where incentivising continued improvement in performance is appropriate and likely cost effective from the perspective of the cost/quality trade-off, a combination of upward and downward adjustments could be a valuable addition to the QoS system. We also note that this is consistent with the approach to incentive schemes for ANSPs under the Single European Sky regulations.

- 13.19 Based on this analysis, we assess that the survey metrics would be appropriate for both upward and downward adjustment thresholds. Some of the survey metrics are very broad; as suggested by Dublin Airport, we consider that a bonus target will incentivise Dublin Airport to use its initiative to consider cost effective ways to improve passenger perceptions of the overall airport experience. On that basis, we propose to also allow for both upward and downward adjustments for performance on the survey metrics only. The other metrics would remain subject to downward adjustments only, where the target is not met.
- 13.20 As in 2019, we propose that the overall price cap adjustments relating to the QoS system remain capped as follows:
- Up to €0.21 in total for security queue times, PRM wait times, and asset availability.
  - Up to €0.15 for the passenger satisfaction results, for both positive and negative adjustments. We also propose to retain the sub-caps within the survey metrics as set out below in the relevant section.

### *Security Queue Times*

- 13.21 In the Issues Paper response, Dublin Airport expresses the opinion that the financial adjustments for security queue times set out in 2019 places too much emphasis on the queue times when the focus of the security team should be on security and safety. It highlights issues currently facing the airport with regard to recruitment of security officers due to an increasingly competitive market and new requirements for enhanced background checks. It states that most security queue breaches occur for reasons outside of the airport's control.
- 13.22 While Dublin Airport agrees that the metrics are important to ensure that the airport meets passenger expectations and to allow an appropriate speed of movement through the airport, it does not agree that penalties are the ideal method to achieve this. It suggests that we consider a reward or bonus-based system, with the focus remaining on incentivising queue times less than 30 minutes. Alternatively, it asks that the requirement for maximum queues of 30 minutes 100% of the time, be reduced to a lower percentage.
- 13.23 IATA comments that it should be confirmed that performance is measured from the point at which the queue starts, rather than at the entry to the security processor, in case the queue extends beyond that point.
- 13.24 In the Regulatory Proposition Dublin Airport has set out the following proposal for security queue times. In summary the proposal is to change the 30-minute queue time target from 100% to 98% of the time.

**Table 13.1: Maximum Security Queue Time Targets proposal from Dublin Airport**

2019 Determination	Dublin Airport proposal
Breach if the security queue is:	
equal to or greater than 45 minutes, at any time	No change
equal to or greater than 30 minutes but less than 45 minutes, at any time	equal to or greater than 30 minutes more than 2% of the time, but less than 45 minutes
less than 20 minutes for less than 70% of the time but less than 30 minutes 100% of the time	No change

Source: Dublin Airport – Regulatory Proposition

### Draft Decision

- 13.25 We propose to retain the targets and financial adjustments in the 2019 Determination for security queue times. Queue times are a central element of the passenger experience and therefore it is important that there is an appropriate incentive in place to resource at a level which will deliver satisfactory performance.
- 13.26 We do not agree with Dublin Airport’s proposal to change the focus of the metric from a rebate to a bonus-based one. A system of bonuses with a lower Opex target is no different, in effect, to a downward adjustment with a correspondingly higher Opex target. Building underperformance into our baseline security staffing model, such that the price cap would then be uplifted appropriately in the event of meeting the target, would be challenging. Dublin Airport does not suggest how we should do this or why it would be superior.
- 13.27 In addition, it is not optimal to plan for consistent outperformance of the identified standard for queue times (for example, at its extreme, achieving no queues at all would be extremely cost inefficient). We do see merit in bonuses, as part of a bonus/rebate for exceptional performance in relation to subjective passenger satisfaction measures, as discussed below.
- 13.28 As in 2019, we do not agree with Dublin Airport’s proposal to lower the percentage of the time that queues are maximum 30 minutes. This change would represent a deterioration in service quality for passengers compared to the standard set in 2019, and while the airport has faced challenges in managing queues in 2022 for a variety of reasons, we would expect that it returns to the previous high performance in this area by 2023. This is critical as we assess that security queue times are a key driver of satisfaction for almost all passengers.
- 13.29 If there is a desire to move away from a 100% measure, we are willing to do this but only if there is a corresponding reduction in the queue time target such that the overall performance target is in line with the existing target.
- 13.30 Other considerations we have taken into account include:
- The security queue measurement system already filters queue times assessed to be outliers. Thus the 100% target is not all measured queue times.

- We are developing our Operating Cost forecasts on the basis of meeting the 2019 targets, with a queue time target of 10 minutes assumed in our staffing forecasts.

**Table 13.2: Maximum Security Queue Time Target Proposals for 2023-2026**

Draft Target	Price Cap at risk
Breach if the security queue is:	Daily
less than <b>20 minutes</b> for less than <b>70%</b> of the time but less than <b>30 minutes 100%</b> of the time	-€0.005
equal to or greater than <b>30 minutes</b> but less than <b>45 minutes</b> , at any time	-€0.01
equal to or greater than <b>45 minutes</b> , at any time	-€0.02

Source: CAR

- 13.31 The proposal to retain the targets and financial adjustments in the 2019 Determination for security queue times has been discussed with the PAG and was supported within the PAG meeting.
- 13.32 We agree with Dublin Airport that compliance with security standards must take full priority over queue time performance. As set out in the CEPA/Taylor Airey report, we are seeking to set Opex allowances sufficient to enable it to meet compliance standards, while also providing sufficient resourcing to meet the queue time targets. It is for Dublin Airport to ensure that it meets the required security compliance standards. If, on a given day, this means that it does not meet a queue time target, then the price cap will be reduced as per Table 13.2, subject to an overall annual cap of €0.21.
- 13.33 This is aligned with the situation for the many other airports which have SLAs or service quality standards in relation to queue time performance in place. It is also aligned with other operators in what is generally a safety and security critical industry; for example, under the Single European Sky performance regulations, ANSPs lose a proportion of their allowed revenues if they do not provide sufficient Air Traffic Management capacity and consequently generate excessive Air Traffic Flow Management (ATFM) delay, while airlines are required to refund/compensate passengers under EU Regulation 261/2004 in the event of underperformance. These operators must similarly ensure they meet required standards of compliance, even if this means underperformance in relation to service quality which has a financial implication.
- 13.34 In response to IATA's comment on measurement of the queue, the current system is designed to measure the entire queue within the departures floor. However, where the queue extends out beyond the maze onto the floor, the accuracy of the measurement of the true queue appears to reduce somewhat.<sup>42</sup> The reporting rules, and in particular any changes to them, must continue to be agreed with CAR.
- 13.35 In 2019, we stated that any evidence of extenuating circumstances would be considered in relation to performance below targets. This will continue to be the case over 2023-2026, although in the past this has been a rare occurrence and has generally only applied to occasions when the queue measuring system has produced spurious

<sup>42</sup> We previously carried out an audit of how closely the reported queue time matches the true queue time experienced by passengers. For further details, see Appendix 4: <https://www.aviationreg.ie/fileupload/2019%20Determination/2018-04-30%20CP7%20Issues%20Paper.pdf>

or anomalous results and this has been confirmed by CAR through CCTV footage. While we have accepted force majeure circumstances more broadly at certain times within 2022 due to high level of COVID-19 related staff absences, this is unlikely to continue in 2023.

### **Passengers with Reduced Mobility (PRMs)**

- 13.36 Dublin Airport requests that we consider aligning the targets for wait times for passengers with reduced mobility with the Service Level Agreement (SLA) which is in place with the service provider, OCS. In particular, it states that a 100% target does not allow for any anomalies caused by operational difficulties, which makes it unachievable. A reduction to 97% would allow for these anomalies while still encouraging high performance overall.
- 13.37 Dublin Airport also asks that we re-examine the wording of this metric for departing passengers. It states that the current wording, ‘from the reception point’ is not in line with similar metrics used in peer airports, and request that it is amended to ‘at the reception point’. It states that the current metric is largely outside of its control due to high numbers of non-pre-advised passengers and unpredictable arrival times of passengers.

**Table 13.3: Passengers with Reduced Mobility Targets proposed by Dublin Airport**

<b>Metric</b>	<b>2019 Determination</b>	<b>Dublin Airport proposal</b>
Maximum wait time for assistance - departing passengers	<p><i>From Reception Point</i></p> <p><b>Pre-Advised</b></p> <p>95% within 15 mins</p> <p>100% within 20 mins</p> <p><b>Not Pre-Advised</b></p> <p>98% within 20 mins</p> <p>100% within 30 mins</p>	<p><i>At Reception Point</i></p> <p><b>Pre-Advised</b></p> <p>92% within 15 mins</p> <p>97% within 20 mins</p> <p><b>Not Pre-Advised</b></p> <p>92% within 20 mins</p> <p>97% within 30 mins</p>
Maximum wait time for assistance - arriving passengers	<p><b>Pre-Advised</b></p> <p>95% within 15 mins</p> <p>100% within 20 mins</p> <p><b>Not Pre-Advised</b></p> <p>98% within 20 mins</p> <p>100% within 30 mins</p>	<p><b>Pre-Advised</b></p> <p>92% within 15 mins</p> <p>97% within 20 mins</p> <p><b>Not Pre-Advised</b></p> <p>92% within 20 mins</p> <p>97% within 30 mins</p>

Source: 2019 Determination, Dublin Airport Regulatory Proposition

### **Draft Decision**

- 13.38 We propose to adjust the targets for pre-advised and non-pre-advised departing and arriving passengers to align them with the targets defined in the SLA in place with OCS. In the Decision on an Interim Review of the 2019 Determination in relation to 2022, we also implemented this change. We propose to maintain this change for 2023-2026.
- 13.39 We have also considered Dublin Airport’s request in relation to the wording of the metric, but we consider that this would likely equate to a deterioration in the passenger experience compared to the current wording, which aligns with the SLA. As we understand it, the change to ‘the percentage of passengers in a day that are assisted at the terminal reception point’ would mean that the wait time is measured

as how long until a member of staff acknowledges the presence at the reception rather than how long the passenger waits to begin their journey through the airport from that point. This change to the metric could result in passengers waiting for periods which would not be encompassed with the QoS system, which is not to the benefit of passengers. Further, the SLA in place with OCS uses the same language as the current metric ('from'), so OCS will continue to be expected to meet this target under the contract with the airport.

- 13.40 The UK CAA document CAP 1228<sup>43</sup>, paragraph 17, references a passenger "being met in person by a staff member". Whilst this could be interpreted as a staff member simply acknowledging the presence of a customer, it can also be interpreted as being the point at which the staff member actually starts to take the passenger on their journey through the terminal. This is supported by the Definition of Rankings in Chapter 5 of the same report as passengers being "provided with assistance" within a certain timeframe. More broadly, it is important to note that the purpose of this metric within the price control determination is not to set quality standards under Regulation 1107/2006, but to do so as part of an Airport Charges determination in a manner which is internally consistent and seeks to maximise the value being provided to airport users. Not meeting a target does not mean that Dublin Airport is legally non-compliant with any regulation, but rather that the price cap set under the Aviation Regulation Act, 2001, falls slightly.
- 13.41 As a comparison to other airports, Manchester Airport and Gatwick Airport both have different terminology in their service standard targets:
- Manchester Airport: "...waiting time once the PRM has made themselves known"; and
  - Gatwick Airport: "...xx% of customers should wait no longer than xx minutes."
- 13.42 In both of the examples above, the targets could be interpreted to mean different things, but ultimately, we consider that the interest of the passenger should prevail, meaning that the time target should be based on when the passenger begins their journey from the reception point, and not simply being based on when they are greeted at the reception point. Furthermore, we do not have data available on actual performance against such a metric.
- 13.43 As set out in Table 13.4, the SLA targets for pre-advised departing PRMs have proven to be the most challenging to meet since the SLA targets were set in late 2019. These results suggest that greater focus is required for PRMs who do take the time to pre-advise, as it appears that there is little or no benefit, on average, to pre-advicing. In fact, it appears that a greater proportion of non-pre-advised PRMs were assisted within 20 minutes, compared to pre-advised PRMs.

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<sup>43</sup> "Guidance on quality standards under Regulation EC 1107/2006"

**Table 13.4: Departing PRM Performance compared to SLA, 2021**

	Pre-advised	Non pre-advised
Target	95% within 15 minutes 98% within 20 minutes	95% within 20 minutes 98% within 30 minutes
Actual	90% within 15 minutes 91% within 20 minutes	96% within 20 minutes 97% within 30 minutes

Source: Dublin Airport

13.44 However, we do not consider that the appropriate response is to change the metric as suggested by Dublin Airport. We do propose to make certain adjustments to the PRM metric:

- Split the arriving and departing metrics into separate price cap adjustments. This will maintain independent incentives in the event of underperformance on either one.
- Adjust the departing passenger metric to encompass both assistance from the terminal reception point (as it does currently), but also assistance from an external point on campus to the terminal reception point.
- A secondary backstop target for pre-advised departing passengers.

13.45 In our meeting with the PAG, it was noted that the current departing metric does not encompass the departing PRM journey from an external point on campus to within the terminal (if such assistance is required). This was considered to be an omission. Thus, in addition to the 'in terminal' target, we also propose to include the external target, in line with the SLA, for assistance from external points to the terminal reception point. We propose to include both of these elements of the departing PRM experience within one combined target, with a potential 1c price cap adjustment if either element is not met, as set out in Table 13.5.

13.46 As set out above, the pre-advised departing PRM performance has been considerably below the agreed service standard in 2021. We consider that the appropriate way to address this is with a 'backstop' target, to maintain some performance incentive if performance is not tracking in line with the SLA in a given year. We thus propose a backstop target in line with the actual performance in 2021. If the backstop target is not met, the total price cap reduction relating to the departing passenger PRM metrics would be €0.02; that is, the backstop target is not additional to the main target of €0.01.



**Table 13.5: Maximum wait time for assistance- proposals for 2023-2026**

Draft Target	Pre-advised	Non pre-advised	Price cap at risk
If a passenger presents for assistance at an external point within the airport campus they should be assisted to the appropriate terminal reception point as follows:	98% within 10 min	98% within 20 min	<b>Annually</b>
Breach if the percentage of passengers assisted from the terminal reception point is lower than the targets as follows:	95% within 15 min 98% within 20 min	95% within 20 min 98% within 30 min	-€0.01
Breach if the percentage of passengers that are assisted from aircraft to terminal holding point onwards is lower than the targets as follows:	93% within 10 min 98% within 15 min	93% within 15 min 98% within 20 min	<b>Annually</b> -€0.01
<b>Backstop Target</b>			
Breach if the percentage of passengers assisted from the terminal reception point is lower than the targets as follows:	90% within 15 minutes 91% within 20 minutes	None	<b>Annually</b> -€0.02

Source: CAR

### Passenger Satisfaction Surveys

13.47 Dublin Airport is generally in favour of maintaining the passenger satisfaction metrics as defined in 2019, with three specific proposals. First, it asks that the walking distance metric is replaced with ease of movement. Second, it suggests that locations of importance are considered for the information on ground transport on arrival metric, and the metric is redefined based on this. Alternatively, it proposes a change in the method of data collection for this metric. Finally, Dublin Airport suggests that the metric 'Sense of Safety for my Health', which was introduced in 2022 is not included with a target but is monitored.

13.48 Dublin Airport's proposals are summarised below:

**Table 13.6: Passenger Satisfaction Surveys – Dublin Airport Proposed Changes**

Metric	Comment
Walking distance	Replace with 'ease of movement'
Information on Ground Transportation on Arrival	<p><b>Proposal 1:</b> Establish areas of importance to passengers, then set metric. Suggestion is to monitor the 'journey' to establish baseline experience and highlight the aspects which have the most importance to passengers; or</p> <p><b>Proposal 2:</b> Change the data collection methodology, to monitor information on ground transportation on arrival, with a</p>

	different methodology to maximise responses while preserving representativeness.
Sense of Safety for my Health	Continue to monitor but not as a target

Source: Dublin Airport – Regulatory Proposition

### Draft Decision

- 13.49 We similarly propose to maintain the passenger satisfaction measures implemented in 2019 generally unchanged, including all associated financial adjustments and targets. We broadly agree with Dublin Airport’s proposals, which we consider to be reasonable. The proposed metrics can be seen in Table 13.7 below.
- 13.50 We propose to accept Dublin Airport’s suggestion to change the ‘walking distance’ metric to ‘ease of movement’. We accept that ease of movement is a factor which the airport can influence more readily than walking distance. In the context of the COVID-19 pandemic, ‘ease of movement’ better captures the themes of personal space and social distancing. As well as distance, it can highlight how passengers are feeling travelling through the airport. Regression analysis conducted by Dublin Airport has identified ‘ease of movement’ as one of several metrics that have the greatest impact on passenger satisfaction. It also provides a broader picture of moving through the airport than walking distance alone. The ‘ease of movement’ metric encompasses a wider array of factors than walking distance alone (for example wayfinding and distance).
- 13.51 Secondly, for ‘information on ground transport on arrival’, we note that this is an important metric that was specifically identified by the PAG in 2019. We are open to Dublin Airport exploring new data collection methodologies for this metric. It has previously been suggested that an online survey could be used to collect data from passengers, which we believe would be an appropriate solution to the issues that the airport has faced with collecting data from passengers who are focused on leaving the airport and do not generally dwell. We propose that the target is set at 8.0 for 2023, and 8.5 for 2024-2026. This will allow an initial adjustment period for the first year while the new measurement methodology is established.
- 13.52 Thirdly, we do not intend to implement a financial adjustment for the ‘Sense of Safety for my Health’ measure. We are not convinced that an additional financial adjustment for this metric would add value to the current QoS scheme. We will continue to monitor and report on this measure over the period.

**Table 13.7: Proposed Passenger Satisfaction Measures and targets**

Metric	Departing	Departing with Assistance	Arriving	Transfer	Draft Target	Price cap at risk
<b>Passenger Care</b>						
Additional Assistance		Y			9.0	Annual -€0.01
Helpfulness of security staff	Y	Y			8.5	Quarterly -€0.01
Helpfulness of airport staff	Y	Y			8.5	Quarterly -€0.01

Cleanliness of terminal	Y	Y	Y		8.5	Quarterly -€0.01
Overall satisfaction	Y	Y	Y	Y	8.5	Quarterly -€0.01
Cleanliness of toilets	Y	Y	Y		8.5	Quarterly -€0.01
Departure gates	Y	Y			8.0	Quarterly -€0.01
Ease of Movement	Y	Y	Y		8.0	Quarterly -€0.01
<b>Passenger information</b>						
Finding your way around	Y	Y	Y	Y	8.5	Quarterly -€0.01
Flight information screens	Y	Y		Y	8.5	Quarterly -€0.01
Ground transport information on arrival			Y		2023 - 8.0 2024 to 2026 - 8.5	Quarterly -€0.01
<b>Passenger facilities and services</b>						
Facilities for Passengers who require additional assistance		Y			9.0	Quarterly -€0.01
Availability of trolleys	Y	Y	Y		8.5	Quarterly -€0.01
Satisfaction with Wi-Fi	Y	Y	Y		8.5	Quarterly -€0.01
Sense of safety for my health	Y	Y	Y		No target	None

Source: CAR. The maximum score for each metric is 10.

- 13.53 The PAG has proposed that the target for cleanliness of toilets, formerly 8.0, be increased, given the importance of this metric to passengers. Historical performance shows that scores in a range of 8.3-8.6 were achieved in the period Q2 2019 – Q1 2020. However, the Departures toilet cleanliness score fell to 8.1 in the September 2021 survey (c. 8.3 for Arrivals) and based on this most recent performance a higher target could be challenging. However, we assess that a target of 8.5 could nevertheless be achievable from 2023; this would be broadly in line with pre-COVID-19 performance. This would align with our general approach of re-establishing 2019 service levels by 2023.
- 13.54 As outlined above, we consider that the passenger satisfaction survey metrics may be suitable for a bonus for outperformance, with the same quantum of financial adjustment (i.e €0.01 per relevant time period for each metric) when the bonus threshold is exceeded. This could encourage service levels to rise permanently over time, and in the future potentially sets higher service level expectations, ultimately benefitting the passenger experience.
- 13.55 Bonus target levels are proposed based on recent performance (where recent measurements are available), otherwise they have been based on an increment over and above the lower target levels. For example, for ‘overall satisfaction’, Dublin Airport scored between 8.6 and 8.8 in 2019, and then between 8.8. and 9.2 in the limited surveys undertaken in 2020 and 2021. We therefore propose to retain the lower bound

target of 8.5 to disincentivise disimprovement and add an upper bound target of 9.3 to encourage continued improvement in performance. We consider that these targets, with reasonable increases in performance, would be challenging but achievable.

13.56 Table 13.8 below shows, for each measure, the target threshold, below which a reduction in the price cap is triggered, and also indicated the target bonus threshold, above which a price cap bonus is triggered.

13.57 As an example, the Cleanliness of Terminal metric would be as follows:

- Below 8.5 would incur a downward adjustment to the price cap of -€0.01 per quarter.
- Between 8.5 and 9.2 would incur no change to the price cap.
- Above 9.2 would incur an upward adjustment to the price cap of +€0.01 per quarter.

**Table 13.8: Passenger Satisfaction Measures – Proposed Bonus thresholds**

Metric	Draft Target	Proposed Bonus Target	Financial Adjustment (+/-)
<b>Passenger care</b>			
Additional Assistance	9.0	9.5	Annual €0.01
Helpfulness of security staff	8.5	9.3	Quarterly €0.01
Helpfulness of airport staff	8.5	9.3	Quarterly €0.01
Cleanliness of terminal	8.5	9.2	Quarterly €0.01
Overall satisfaction	8.5	9.3	Quarterly €0.01
Cleanliness of toilets	8.5	9.2	Quarterly €0.01
Satisfaction with Departure gates	8.0	9.0	Quarterly €0.01
Ease of Movement	8.0	9.0	Quarterly €0.01
<b>Passenger Information</b>			
Finding your way around	8.5	9.0	Quarterly €0.01
Flight information screens	8.5	9.0	Quarterly -€0.01
Ground transport information on arrival	2023 - 8.0 2024-2026 – 8.5	2023 - 8.5 2024-2026 – 9.0	Quarterly -€0.01
<b>Passenger Facilities and Services</b>			
Facilities for Passengers who require additional assistance	9.0	9.5	Quarterly -€0.01
Availability of trolleys	8.5	9.0	Quarterly -€0.01
Satisfaction with Wi-Fi	8.5	9.0	Quarterly -€0.01

Sense of safety for my health	No target	No target	Quarterly -€0.01
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Source: CAR

- 13.58 As set out above, we propose that the overall cap on the survey metric financial adjustments of €0.15, as established in 2019, is retained. This is subdivided as follows:
- Up to €0.07 for Passenger Care
  - Up to €0.04 for Passenger Information
  - Up to €0.04 for Passenger Facilities and Services
- 13.59 Any relevant downward and upward adjustments would be applicable on a net basis. That is, should Dublin Airport exceed the bonus threshold in one metric but fail to achieve the minimum target in another, these would net off.

### **Asset Availability and Baggage Handling**

- 13.60 Dublin Airport suggests that we consider aligning the availability percentage across all asset and baggage targets, for consistency. It states that we should be cognisant of the fact that it will not have a fully operational baggage system until the end of Q1 2023, resulting in reduced capacity and resilience in Terminal 1. Further, it explains that the airport is currently operating with reduced resources both technically and operationally due to COVID-19 and that this should be considered when defining any targets. Finally, it states that as the airport is in the process of a major restructuring of new ways of working, and the impact of this on training and capabilities of new staff should also be considered.
- 13.61 Dublin Airport therefore proposes a 98% target, to be effective from H2 2023.

### **Draft Decision**

- 13.62 We propose to retain the main targets for the availability of assets and baggage handling belts at the levels set out in the 2019 Determination. All targets are currently at 99% for 2022, with the exception of baggage which necessitates availability within 30 minutes 100% of the time for both outbound and inbound baggage. There are also exceptions for new FEGP and AVDGS units which have lower targets for the first operational year.
- 13.63 For the baggage metric, Hold Baggage Screening Standard 3 (HBS3) has been implemented in T2 and should be implemented by the end of Q1 2023 in T1, which will shift the metric to one that is based on outcomes which should better protect the interests of passengers and airlines. As this measure is not based purely on asset availability and allows for alternative methods of delivering baggage within the timeframe, a 100% target remains appropriate. As noted by Dublin Airport, it will be expected to avoid any delays of more than 30 minutes in providing ground handlers at make-up positions with access to a functioning baggage system or a comparable alternative that achieves the outcome of delivering bags through the inbound/outbound system.

**Table 13.9: Availability of Baggage Belt and IT Systems**

Baggage	Draft Target	Price cap at risk
3.Outbound	<b>(Before the implementation of HBS3) Access to belts is available within 30 minutes of request</b>	Per event -€0.01
	<b>Outcome of delivering departing bags: available within 30 minutes of request</b>	
4. Inbound	<b>(Before the implementation of HBS3) Access to belts is available within 30 minutes of request</b>	Per event -€0.01
	<b>Outcome of delivering arriving bags: available within 30 minutes of request</b>	

Source: CAR

- 13.64 In the case of Fixed Electric Ground Power (FEGP), the target of 99% set in 2019 was linked to the level of uptime outlined by Dublin Airport during consultations for the investment in new solid state FEGP units. This rationale remains valid. We note that January 2022 performance was at 97.8% and more recently, FEGP availability has been outperforming the current target of 99%. We also note that A-VDGS uptime has recently been slightly below the target, with lifts and escalators somewhat weaker again at c96%.
- 13.65 Overall, we consider that 99% availability remains appropriate, and aligns with the information provided during consultation and/or our general approach of a return to 2019 service standards by 2023. However, we recognise that this is likely to be a challenging target for certain assets, and therefore we propose to reduce the monthly price cap at risk from -€0.01 to -€0.005 if the availability falls below 99% but remains above 98%, and with anything below 98% incurring the full -€0.01 adjustment set out in 2019.
- 13.66 For new units in the first year, we propose that the availability target remains at 93.5%. This is to account for snagging issues likely to be observed with newly installed units.

**Table 13.10: Availability of Airfield and Terminal Equipment**

Availability of:	Draft Target	Price cap at risk
5. Fixed Electric Ground Power (FEGP)	For new units, 93.5% available on average in the first year. For all other units, target of 99%	<98%: Monthly -€0.01 >=98% but <99%: Monthly -€0.005 All From Q1 2023
6. Advanced Docking Guidance System (AVDGS)	For new units, 93.5% available on average in the first year. For all other units, target of 99%	<98%: Monthly -€0.01 >=98% but <99%: Monthly -€0.005 From Q1 2023
7. Passenger-facing escalators, travellators and lifts in T2	99% average across units	<98%: Quarterly -€0.01 >=98% but <99%: Quarterly -€0.005 All From Q1 2023
8. Self-service check-in kiosks and bag drop machines	Average of 99% availability across units.	<98%: Quarterly -€0.01 >=98% but <99%: Quarterly -€0.005 All From Q1 2023

Source: CAR

## 14. Other Issues

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14.1 In this section we discuss a number of issues which do not naturally fit into one of the other sections. We do not propose to make any changes to our approach to these issues as part of this review.

### *Incentive Schemes*

14.2 We propose to continue our current regulatory treatment of incentive schemes funded by Dublin Airport, whereby rebates or discounts on airport charges liability accrued each year, which relate to schemes which have been consulted on and published, may be netted off against aeronautical revenues for that year.<sup>44</sup> This is in line with the paper published by the Thessaloniki Forum of European Airport Charges Regulators, which notes the importance of considering the charging strategy overall rather than considering incentive or discount schemes as being particularly distinct from other aspects, such as the basic per passenger and per aircraft movement charges. Having considered this issue in detail as part of the Forum working group, we are fully aligned with the paper in that regard.<sup>45</sup>

14.3 The perceived distinction between incentive schemes and other aspects of a charging strategy appears to arise from the fact that one is rebated while the others are not. Regardless of this, each will affect the charges paid by airport users, as set out in the menu of charges or the scheme Terms and Conditions, as applicable. There is significant overlap in how airports describe and implement mechanisms to vary charges, but if the ultimate outcome in terms of airport charges payable is the same, then this is irrelevant.

14.4 Dublin Airport should consult with users on all elements of the charging strategy as part of the annual consultation. The Forum recommends that, at annual consultations, airports should justify airport charging strategies, including incentive schemes, in accordance with the relevant articles in the ACD:

- Issues of public or general interest (Article 3)
- a common charging system in certain circumstances (Articles 4 and 5)
- differentiation according to the cost, quality, or scope of services provided or any other objective and transparent justification (Article 10). The Forum particularly notes that justified behavioural or efficiency incentivisation should be considered a valid reason for differentiated charges.

14.5 The Forum recommends that it may not be necessary to consult on every element of the charging strategy at every consultation, but rather focus on elements which the airport is proposing to change, or existing elements specifically requested or questioned by users. Terms and Conditions attached to any elements of the charging strategy form part of the strategy, and thus should form part of the consultation, particularly if amendments are proposed.

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<sup>44</sup> This does not include any government funded schemes or schemes funded by a party other than Dublin Airport, in which case netting off the scheme costs would not be revenue neutral to Dublin Airport.

<sup>45</sup> <https://www.aviationreg.ie/fileupload/Incentives%20and%20Discounts.pdf>



### *K Factor*

- 14.6 We propose to retain the K Factor to continue to allow for imperfect pricing by Dublin Airport. We intend to maintain the limit on the K Factor at 5% of the price cap. We consider that a higher cap would allow for significant reprofiling of revenues out of one year and into others. The 5% cap allows for imperfect annual revenue forecasting by Dublin Airport, without allowing for a higher level of re-profiling which, in our view, would disproportionately erode the 'user pays' principle.
- 14.7 As set out in the 2019 Determination, we will set a provisional K Factor as part of the provisional price cap statement, based on outturn passenger numbers and an updated forecast for passenger numbers ahead of the year in question. This would then be adjusted based on final outturns when the final price cap is calculated in the following year. This would work similarly to the adjustment for Quality-of-Service. This mechanism removes the volume risk from the K Factor, ensuring perfect recovery up to the limit on the K Factor.
- 14.8 In 2019 we determined that should daa collect more than permitted, it shall arrange to rebate users within 90 days of the year ending a sum sufficiently large such that revenues collected, net of this sum, on a per passenger basis, do not exceed the maximum permitted yield per passenger. We do not propose any changes to this approach.

## 15. Appendix 1: Elasticity Estimations

### Passenger Forecasts

Table 15.1: Passenger/GDP Elasticities

Historical Period	1998-2018	1998-2019	1998-2021
Pax elasticity	1.05	1.03	0.21
R2	95%	95%	3%

Source: CAR

- 15.1 The above results relate to total Dublin Airport passenger traffic and have been calculated on a log-log basis for passenger volume versus Irish GDP. The elasticity of 1.03 has been used within the traffic forecast as described in Section 7.
- 15.2 Using the same approach, we have also assessed the results against Dublin’s total non-connecting passenger traffic. The statistical significance (measured by r2) and elasticities are similar to the results above.

### Commercial Revenues

- 15.3 Here we outline the regression models underpinning the elasticities we have determined for each category of Commercial Revenue. For each category, up to six different linear regression models are used to calculate the elasticities. Model 1 includes total passengers as the independent variable and regresses it against the category of revenue. Model 2 adds real GDP as another variable to the regression model. Model 3 replaces the GDP variable with a trend component. The trend component explains the trend in the historical relationships between the variables in the regression models, which is not explained by the other components in the model. Model 4 includes both the GDP and trend component, along with total passengers. Model 5 regresses real GDP against the category. Finally, Model 6 regresses both real GDP and trend against the category.
- 15.4 Each model has then been validated using multiple statistical tests, the results of which are discussed below. The tests aim to identify autocorrelation (Durbin-Watson and Durbin’s alternative test) and any ARCH (Autoregressive Conditional Heteroskedasticity) effects (ARCH-LM test). D-stat results from the Durbin-Watson test have been provided along with their upper and lower bounds in the tables below. If the D-stat is below the lower bound, there is presence of negative autocorrelation and vice-versa. Durbin’s alternative f-test and ARCH-LM tests show the presence of autocorrelation and ARCH effects given the test statistic turns out to be bigger than the chosen significance level. The presence of autocorrelation and ARCH effects in the models would violate the assumption of the error terms being uncorrelated. This in turn means that the standard Gauss Markov Theorem would not be applicable, i.e., the coefficients are not the best linear unbiased estimators. Meeting Gauss-Markov assumptions means the estimates provide the best linear approximation and least variance of all linear estimations possible. Consequently, the violation of these assumptions implies the model has some inefficiencies.
- 15.5 It should be noted that these tests are being carried out on a time-series data with a small sample size. The test results are therefore not expected to be completely

efficient. Nonetheless, these test results are noted below to help gain a better understanding of the elasticities.

### Net Retail

- 15.6 We have estimated a passenger elasticity for Net Retail of 1.34. This is higher than the elasticity of 1.1 we calculated in 2019. The higher elasticity is due in part to the inclusion of data from 2019, which was not factored into the previous analysis, and which included a substantial increase in retail spending per passenger. The increase is also due to a data error that occurred in 2019 which resulted in inflated retail revenue entering the model in the early part of the series. Annual data from 2001 to 2019 shows that when estimated along with GDP, the passenger elasticity is 1.31. It is lower than when estimated alone – but not by a large margin. The GDP elasticity increases to 1.33 (when estimated simultaneously with passenger elasticity) compared to 0.05 (when estimated alone).

**Table 15.2: Net Retail Elasticities**

Net Retail	Annual data					
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	1.38***	1.31***	1.34***	1.31***	N/A	N/A
GDP Elasticity	N/A	0.08	N/A	0.05	1.41***	1.33***
Trend	N/A	N/A	0.0009	0.0007	N/A	0.0016
Adj. R-squared	0.941	0.937	0.937	0.933	0.876	0.869

Source: CAR

- 15.7 It is intuitive that retail should grow faster than passenger numbers as it depends on both passenger volume and disposable income of those passengers. Therefore, an elasticity of 1.34 reflects two effects: 1) higher GDP results in more passengers, i.e. higher retail revenue, and 2) those passengers will have higher disposable income due to higher GDP which will increase retail revenue. However, due to a high correlation existing between these variables, it is not possible to simultaneously calculate both passenger and GDP elasticities

**Table 15.3: Net Retail Autocorrelation and ARCH-LM tests**

Net Retail	Autocorrelation and ARCH effect tests											
MODEL	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	1.36	dL = 1.074 dU = 1.536	1.32	dL = 0.967 dU = 1.685	1.35	dL = 0.967 dU = 1.685	1.33	dL = 0.859 dU = 1.848	0.67	dL = 1.074 dU = 1.536	0.67	dL = 1.074 dU = 1.536
Durbin's alternative f-stat	1.81		2.01		1.76		1.85		10.25		10.1	
ARCH-LM test	8.89		9.26		9.35		9.47		7.12		7.52	

Source: CAR

- 15.8 Tests for autocorrelation are inconclusive. Presence of autocorrelation in the data implies that there is presence of correlation between multiple variables through successive time periods. This biases the elasticity that the model calculates. In fact, as discussed above, this autocorrelation is a reason for the elasticity being higher than 1. ARCH-LM tests show the presence of ARCH effects in the data. Presence of ARCH effects signifies that the time-series is exhibiting conditional heteroskedasticity.

### Car Parking

**Table 15.4: Car Parking Elasticities**

Car Parking	Annual data					
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	0.59***	0.21	1.55***	0.36	N/A	N/A
GDP Elasticity	N/A	0.42	N/A	1.68***	0.63***	2.03***
Trend	N/A	N/A	-0.021	-0.03***	N/A	-0.03***
Adj. R-squared	0.373	0.349	0.713	0.902	0.383	0.895

Source: CAR

- 15.9 Compared to 2019, the car parking elasticity has increased slightly from 1.5 to 1.55. Annual data supports our assumption that car parking elasticity depends not only on the number of passengers but also on the level of disposable income of these passengers. GDP elasticity is calculated to be 2.03.
- 15.10 Like net retail, it is likely that this elasticity reflects the two mechanisms which affect increased car parking revenues. When calculated simultaneously, passenger elasticity is 0.36 (insignificant) and GDP elasticity is 1.68. This estimation also suffers from high correlation between the two variables.

**Table 15.5: Car Parking Autocorrelation and ARCH-LM tests**

Car Parking	Autocorrelation and ARCH effect tests											
MODEL	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	0.19	dL= 1.074 dU= 1.536	0.21	dL= 0.967 dU= 1.685	0.38	dL= 0.967 dU= 1.685	1.75	dL= 0.859 dU= 1.848	0.24	dL= 1.074 dU= 1.536	1.97	dL= 0.967 dU= 1.685
Durbin's alternative f-stat	56.43		68.88		27.99		0.1		52.92		0.01	
ARCH-LM test	6.7		6.15		2.95		0.62		5.62		0.39	

Source: CAR

- 15.11 Durbin-Watson test for autocorrelation show either positive autocorrelation results (for model 1) or negative autocorrelation (for models 4 and 6). Presence of autocorrelation in the data implies that there is presence of correlation between multiple variables through successive time periods. This biases the elasticity that the

model calculates. The presence of autocorrelation is not surprising and is in fact expected given the scope of the data we are working with. It can also explain the greater than 1 elasticity that we estimate. ARCH-LM tests show there is no presence of ARCH effects in the data.

### Property Concessions

**Table 15.6: Property Concession Elasticities**

Property Concessions		Annual data				
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	0.76***	-0.28	0.8***	-0.24	N/A	N/A
GDP Elasticity	N/A	1.14***	N/A	1.46***	0.85***	1.23***
Trend	N/A	N/A	-0.0008	-0.007*	N/A	-0.007**
Adj. R-squared	0.714	0.817	0.697	0.848	0.82	0.851

Source: CAR

- 15.12 The passenger elasticity for property concessions increases marginally to 0.8 from the 0.7 estimated in the 2019 Determination. Annual data supports our assumption that commercial concessions passenger elasticity depends not only on the number of passengers but also on the level of disposable income of these passengers. GDP elasticity is calculated to be 1.23.
- 15.13 When calculated simultaneously, passenger elasticity is -0.24 (insignificant) and GDP elasticity is 1.46. This estimation again shows high correlation between the two variables, which is again intuitive as outlined above.

**Table 15.7: Property Concessions Autocorrelation and ARCH-LM tests**

Property Concessions	Autocorrelation and ARCH effect tests											
MODEL	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	0.84	dL= 1.074 dU= 1.536	1.33	dL= 0.967 dU= 1.685	1.02	dL= 0.967 dU= 1.685	1.38	dL= 0.859 dU= 1.848	1.26	dL= 1.074 dU= 1.536	1.29	dL= 0.967 dU= 1.685
Durbin's alternative f-stat	7.81		2.53		4.47		1.83		2.6		2.37	
ARCH-LM test	0.82		0.26		0.08		0.08		0.2		0	

Source: CAR

- 15.14 A Durbin-Watson test for autocorrelation shows that the Model (3) regression has positive autocorrelation, i.e., when computing the elasticity of passengers alone. Models (4) and (6) have negative autocorrelation. The presence of autocorrelation in the data implies that there is presence of correlation between multiple variables

through successive time periods. This biases the elasticity that the model calculates. ARCH-LM tests show there is no presence of ARCH effects in the data. Model (6) also notes no ARCH effects.

- 15.15 Model (3) is used to estimate the elasticity of property concessions. When the GDP elasticity is calculated along with the trend component, we get an estimate of 1.23. Furthermore, it is expected that there will be autocorrelation, given the nature of the time-series data we are working with.

## Property Rents

**Table 15.8: Property Rents Elasticities**

Property Rents		Annual data				
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	0.9***	-0.16	0.3	-0.22	N/A	N/A
GDP Elasticity	N/A	1.17***	N/A	0.72	1***	0.51*
Trend	N/A	N/A	0.013***	0.01**	N/A	0.01**
Adj. R-squared	0.705	0.776	0.803	0.818	0.787	0.826

Source: CAR

- 15.16 The property rent elasticity is calculated using Irish Gross Domestic Product (GDP). GDP explains the change in property rents more comprehensively than passenger traffic. Therefore, GDP is used as the only independent variable in the regression model (5) to calculate the elasticity of 1, which is significant at the 1% level.
- 15.17 Revenue from property rents has a significant correlation with Irish GDP. Therefore, it is reasonable to calculate the elasticity using GDP. When calculated simultaneously, passenger elasticity is -0.22 and GDP elasticity is 0.72, both of which are insignificant. This estimation also shows high correlation between the two variables.

**Table 15.9: Property Rents Autocorrelation and ARCH-LM tests**

Property Rents	Autocorrelation and ARCH effect tests											
	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	0.84	dL= 1.074 dU= 1.536	1.33	dL= 0.967 dU= 1.685	1.02	dL= 0.967 dU= 1.685	1.38	dL= 0.859 dU= 1.848	1.26	dL= 1.074 dU= 1.536	1.29	dL= 0.967 dU= 1.685
Durbin's alternative f-stat	7.81		2.53		4.47		1.83		2.6		2.37	
ARCH-LM test	0.82		0.26		0.08		0.08		0.2		0	

Source: CAR

- 15.18 None of the models are noted to have presence of ARCH effects in the regression. The models do have autocorrelation present. The presence of autocorrelation in the data

implies that there is presence of correlation between multiple variables through successive time periods. This biases the elasticity that the model calculates.

- 15.19 Model (5) is used to estimate the elasticity of property rents. When the GDP elasticity is calculated along with the trend component, we get an estimate of 0.51 at a much lower significance level. Furthermore, it is expected that there will be autocorrelation, given the nature of the time-series data we are working with.

### Property Advertising

**Table 15.10: Property Advertising Elasticities**

Property Advertising		Annual data				
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	1.18***	0.77	0.77**	0.72	N/A	N/A
GDP Elasticity	N/A	0.45	N/A	0.07	1.24***	0.78**
Trend	N/A	N/A	0.009	0.01	N/A	0.01
Adj. R-squared	0.785	0.78	0.805	0.792	0.767	0.781

Source: CAR

- 15.20 The passenger elasticity for property advertising is 0.77. On the other hand, GDP elasticity is 0.78. Both are significant at the 5% level.
- 15.21 When calculated together, passenger elasticity becomes 0.72 (insignificant) and GDP elasticity becomes 0.07 (insignificant). These estimates are not reliable due to high correlation between the variables.

**Table 15.11: Property Advertising Autocorrelation and ARCH-LM tests**

Property Advertising	Autocorrelation and ARCH effect tests											
MODEL	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	0.98	dL=1.074 dU=1.536	1.06	dL=0.967 dU=1.685	1.2	dL=0.967 dU=1.685	1.2	dL=0.859 dU=1.848	1.13	dL=1.074 dU=1.536	1.24	dL=0.967 dU=1.685
Durbin's alternative f-stat	3.17		2.62		1.12		1.06		2.93		1.53	
ARCH-LM test	0.21		0.08		0.05		0.03		0.02		0.06	

Source: CAR

- 15.22 None of the models in the table above have presence of ARCH effects. Although tests show all models have autocorrelation issues. Presence of autocorrelation in the data implies that there is presence of correlation between multiple variables through successive time periods. This biases the elasticity that the model calculates. The presence of autocorrelation is not surprising and is in fact expected given the scope of the data we are working with.

*Lounges, Fastrack and Platinum***Table 15.12: Lounges, Fastrack and Platinum elasticities**

Other (Passenger)		Annual data				
MODEL	(1)	(2)	(3)	(4)	(5)	(6)
Passenger Elasticity	4.45***	2.05*	2.53***	1.85**	N/A	N/A
GDP Elasticity	N/A	2.63**	N/A	0.96	4.71***	2.77***
Trend	N/A	N/A	0.04***	0.04***	N/A	0.04***
Adj. R-squared	0.91	0.928	0.965	0.965	0.918	0.954

Source: CAR

- 15.23 The passenger elasticity is estimated to be 2.53. The GDP elasticity is estimated at 2.77 and is significant at the 1% level. Both these results are high, although they have decreased from the 2019 determination.
- 15.24 When calculated simultaneously, passenger elasticity is 1.85 and GDP elasticity is 0.96 (insignificant).

**Table 15.13: Other (Passengers) Autocorrelation and ARCH-LM tests**

Other (Passengers)	Autocorrelation and ARCH effect tests											
MODEL	(1)		(2)		(3)		(4)		(5)		(6)	
Durbin-Watson d-statistic	0.75	dL= 1.074 dU= 1.536	1.02	dL= 0.967 dU= 1.685	1.36	dL= 0.967 dU= 1.685	1.55	dL= 0.859 dU= 1.848	1.1	dL= 1.074 dU= 1.536	1.45	dL= 0.967 dU= 1.685
Durbin's alternative f-stat	9.97		4.96		1.15		0.48		4.04		1.14	
ARCH-LM test	2.69		1.94		0.01		0.01		1.5		0.13	

Source: CAR

- 15.25 None of the models have presence of ARCH effects, although they show autocorrelation. Presence of autocorrelation in the data implies that there is presence of correlation between multiple variables through successive time periods. This biases the elasticity that the model calculates. The presence of autocorrelation is not surprising, as discussed previously.

*Other, and US Preclearance*

- 15.26 Two categories of Commercial Revenues, Other, and US Preclearance, have not been forecast using the elasticity approach otherwise used for Commercial Revenues. We forecast US Preclearance to grow with US traffic levels (an assumed elasticity of 1), while the Other category is based on information provided by Dublin Airport. The two categories are therefore not assessed in this appendix. Information on how these



categories are forecast is provided in the Commercial Revenues section.

## 16. **Appendix 2: Assessment of Capital Investment Programme by Project**

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- 16.1 This appendix provides our draft assessment of the capital projects proposed in the CIP2020+ review.<sup>46</sup> These projects are summarised in the table at the end of this Appendix, along with their asset lives, real allowances, and the proposed regulatory treatment.
- 16.2 The updated CIP proposes several new projects which were not included in the original 2019 CIP. Dublin Airport has also elected to cancel or defer several projects. In some cases, previously proposed projects have been superseded by new or updated projects, typically either in the same category or in the new Sustainability category.
- 16.3 Finally, the ‘Sustainability’ category has been added to CIP2020+. This category consists of projects which have been proposed by Dublin Airport with the primary purpose of achieving its climate targets and are discussed in the Sustainability section below.

### ***‘Core’ Projects from Original Investment Programme***

- 16.4 For five project groupings allowed for in the original 2019 Determination, Dublin Airport does not propose to reassess the project scope or costing, except to adjust the latter for increases in construction price inflation (escalation) since 2019. These groupings are:
- Asset Care Civils, Structural, and Fleet (CSF)
  - Asset Care Mechanical and Electrical (M&E)
  - IT
  - Security
  - ‘Other’ Projects.
- 16.5 Dublin Airport terms these the ‘core’ projects, on the basis that these projects are primarily intended to maintain the safe, secure and effective operation of the airport, rather than to enhance its commercial or aeronautical offering. We agree with Dublin Airport that these projects were assessed in detail already in 2019, and we consider the proposed approach to be reasonable in principle.<sup>47</sup>
- 16.6 The IFS has considered Dublin Airport’s approach to the escalation adjustment and considers the indices used to be appropriate. However, the IFS has excluded monies already spent from this adjustment. We then convert the IFS costings into real prices, based on the midpoint of the timeline assumption used to calculate the escalation allowances. We continue to allow for all core projects which were allowed in 2019.
- 16.7 Dublin Airport has also proposed four new core projects, which are addressed below,

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<sup>46</sup> CIP2020+ is the revised Capital Investment Program published by Dublin Airport. See CIP2020+ here:

<https://www.aviationreg.ie/fileupload/CIP2020%20Review%20-%20Final%20Report%20-%20Redacted.pdf>

<sup>47</sup> See Appendix 2: <https://www.aviationreg.ie/fileupload/2019/Draft%20Determination/2020-2024%20Draft%20Determination.pdf>

as well as a pro-rata increase in allowances to accommodate the additional two years (2025 and 2026) of CIP2020+. As set out in the Capex chapter, we do not propose to include this additional pro-rata type allowance.

### *Regulatory Treatment of Original Core Projects*

- 16.8 In general, we consider that for most of the original core projects, the reasons set out in 2019 as to why they were designated Flexible, Deliverable, or StageGate remain valid (see paragraphs 11.62 to 11.68 above for a description of these terms). Many of the smaller Deliverables are progressing or, in some cases, are already complete. Furthermore, the two extra years added to this regulatory period gives Dublin Airport more time to complete Deliverable projects. Hence, with one exception, we propose to retain the regulatory treatment as per the 2019 determination.
- 16.9 The exception is the T1 Façade/Roof/Spirals project, due to the potential for this project to overlap or be replaced by the outcome of the T1 Sustainability project CIP.20.09.009. This Sustainability project will develop a strategy for upgrade and replacement in T1 and interconnected buildings to help the airport reduce carbon emissions. We also note the relatively high number of Deliverables in the Asset Care CSF grouping; particularly in the context of not including the additional ‘pro-rata’ allowances proposed by Dublin Airport, we consider that it is reasonable to enhance flexibility within this grouping, which will, if necessary, allow Dublin Airport to reallocate expenditure to Asset Care CSF projects which currently are undefined.
- 16.10 We remain open to considering any specific reasons provided for adjusting the regulatory treatment of any other project, ahead of the Final Decision.

### **New Core Projects**

- 16.11 Apart from the core projects which have been rolled forward from 2019, Dublin Airport has also proposed 4 new core projects, discussed below.

#### *CIP.20.07.035 – MV Resilience Substation – Proposed allowance €51.9m (real)*

- 16.12 The original Core project CIP.20.02.002 provided for a feasibility study into the provision of a second Medium Voltage (MV) Connection Point. The feasibility study is ongoing, but initial output has identified a need for MV cold standby supply resilience, which Dublin Airport proposes to provide under this project.
- 16.13 This is a major project, which would deliver a second 110kV substation with a location to be a significant distance away from its existing electricity connection point at Dardistown 110kV substation. Although Dublin Airport receives electricity supply from two 110kV (HV) ESB networks, these connect at the Dardistown substation, which thus presents a single point of potential failure. Dublin Airport states that current electricity back up infrastructure can support outages of up to 2 hours, whereas a catastrophic failure (such as a fire) at the substation would likely to be greater than 1 month.
- 16.14 We also note the recommendation in the ICAO Aerodrome Design Manual - Part 5 (Electrical Systems), which states *“For major airports, it is desirable to have at least two independent incoming power sources coming from widely separated sections of*

*the electricity network beyond the aerodrome*".<sup>48</sup>

16.15 We thus agree with Dublin Airport on the addition of this project to the CIP, and have made an allowance for it. We propose that this project will progress through StageGate.

*CIP.20.07.036 – Upgrade to Hold Baggage Sortation Equipment – Proposed Allowance €40.3m*

16.16 This project would carry out End-of-Life asset replacement and upgrades to Hold Baggage Sortation Equipment across Terminals 1 & 2. These upgrades will be made to equipment which was not upgraded or replaced during the recent HBS3 upgrade to both terminals. Project deliverables include:

- T1 6 bay departure system sorter replacement.
- Replacement of end-of-life T1 arrivals delivery lines and carousel 2 to 5, and 6 to 10.
- End-of-life T1 area 14 carousel 5 and check in outbound delivery conveyor replacements.
- T2 sorter redundancy line upgrade.

16.17 We have previously agreed with Dublin Airport that End of Life is defined as follows:

- The vendor will no longer provide the support necessary to maintain processing ability and/or regulatory compliance, or
- Dublin Airport has determined that specific equipment will no longer be capable of properly or reliably fulfilling its intended purpose, due to faults and/or wear and tear.

16.18 We thus agree that this project will allow Dublin Airport to meet current and future Quality of Service measures through improved system performance and reliability and is in the interest of airport users.

16.19 We accept Dublin Airport's suggestion that, due to the limited time available to define, cost and consult this project, it should be considered in the StageGate process.

*CIP.20.06.045 – Security scanners - Proposed Allowance €26.5m*

16.20 This project builds on the CIP.20.06.007 – Full Body Scanners pilot project included in 2019 for the deployment of body scanners after the Walk-Through Metal Detectors, which proposed to deploy 4 new security scanners on a trial basis. It was intended that this would be followed by full deployment of body scanners in the subsequent CIP.

16.21 Given the extension to the regulatory period, and the ability to learn from the deployment at other airports since 2019, Dublin Airport now proposes to add the broader roll-out of body scanners to the revised investment programme. This

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<sup>48</sup> Section 3-2:

<https://www.flashtechology.com/wp-content/uploads/2017/12/ICAO-Doc-9157-Aerorome-Design-Manual-Part-5-Electrical-Systems.pdf>

increases the number to 42 total scanners to be deployed across Dublin Airport in T1 (17 new scanners), T2 (15 new) as well as deploy 6 new scanners in the VCP, Fire-Station and maintenance base areas of the campus.

- 16.22 Dublin Airport is proposing this in anticipation of potential future mandated full body screening; the scanners will also reduce the need for hand searches for alarm resolution. We recognise that Dublin Airport's approach is reasonable and allow for this project. We propose to include the project in StageGate to permit greater flexibility/design development in its delivery, particularly given the interrelatedness with other security processor projects planned.

#### *CIP.20.06.046 – Terminal kerb security mitigation - Proposed Allowance €11.2m*

- 16.23 To combat security threats to persons and property, Dublin Airport proposes the following risk mitigation projects:

- T1 & T2 departures and arrivals anti-VBIED (Vehicle Borne Improvised Explosive Device) systems to resist a vehicle attack.
- T1 departures and arrivals anti-PBIED (Person Borne Improvised Explosive Device) systems to prevent such attacks in the area.

- 16.24 These risk mitigation mechanisms were identified in a risk evaluation report commissioned by Dublin Airport. This project is in the interests of airport users, and we propose allowing for it.

- 16.25 While this is a relatively minor project, Dublin Airport has requested that it be included in the StageGate process based on the project costing being high level and the project at an early stage of design development, with the design set to be developed with specialised consultants. We propose to accept this and include the project in the StageGate process.

#### *Capacity*

- 16.26 This category of projects represents the investments intended to deliver infrastructure to provide airport services to an increased volume of passengers. Consistent with 2019, the main objective of the capacity projects in the updated CIP is to develop the airport such that it can handle 40 million passengers per annum (mppa) at an appropriate level of service. In the context of a quick recovery in passenger numbers towards 2019 levels, we consider that this remains a reasonable approach to developing the required airport capacity in the interests of future airport users.

- 16.27 The capacity projects in the revised CIP can be broadly subdivided into 3 categories:

- Projects which are essentially unchanged from 2019, but updated for escalation.
- Projects proposed in 2019 which are still included but with some scope and/or output changes proposed.
- New projects.

- 16.28 In the 2019 Determination, we allowed for all projects in this grouping. We assessed these projects in detail both individually and collectively in 2019, including commissioning simulation modelling of both the terminals, and the airfield which confirmed that the planned future airport would allow for 40mppa at an appropriate service standard.<sup>49</sup> Thus, overall, that analysis remains relevant and below we consider, in particular, scope changes and new projects, and how these fit into our previous analysis.
- 16.29 One project has already been completed (20.03.004 - Gate Post 9 Expansion, West Lands), and hence is included in the summary table at the end of the appendix but not in the discussion below.
- 16.30 The role of the IFS is to individually assess the proposed capacity projects for any costing or scoping inefficiencies.

#### *CIP.20.03.012 – T1 Central Search - Proposed Allowance €43.9m*

- 16.31 This project is broadly in line with the original CIP2020 project, which would relocate the T1 Central Search facility from the current departures floor to the mezzanine. This will involve an expansion of the mezzanine to accommodate 25m ATRS (automatic tray return system) lanes and full body-scanner security lanes (the current lanes are 17m). Given that the project has progressed more slowly than anticipated in 2019, it has now been split into two phases, the first phase being the installation of screening equipment into the existing departure level central search facility. This equipment will be then relocated to the phase 2 mezzanine facility when constructed.
- 16.32 The IFS noted that given the introduction of C3 scanners, the processing benefit of additional lane length might be reduced, given a reduced level of passenger divestment compared to the current situation. Thus, the additional capacity provided by this project over the current capacity may not be substantial. However, we also note that a key purpose of this project is the move to a location which can accommodate additional lanes incrementally, if required, rather than providing all of the potential increased capacity immediately. We understand that adding incremental lanes (of any length) is not possible in the current location due to infrastructural constraints.
- 16.33 As in 2019, we continue to allow for this project in the interests of future airport users, to provide a facility in a location which can accommodate 40mppa and beyond. We note continued stakeholder support for this project. The scope of this project can be considered further through the StageGate process, in particular after phase 1 is completed and before the execution of phase 2.

#### *CIP.20.03.013 – T1 Departures Lounge - Proposed Allowance €33.2m*

- 16.34 Related to the above mentioned T1 central search facility relocation, the T1 departures lounge will be expanded in the space vacated by the current security processor. The project remains broadly in line with 2019. The main aim is to use the expanded space to allow for new business lounges, food & beverage areas and retail offerings.

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<sup>49</sup> See Appendix 2:

<https://www.aviationreg.ie/fileupload/2019/Draft%20Determination/2020-2024%20Draft%20Determination.pdf>

16.35 The original project has been re-measured to take account of adjoining and complementary projects. The project delivers a redesigned IDL by stripping out the existing security area, relocating fast-track screening, relocating lounge shell, installing new commercial shell, new toilets and various circulation adjustments.

16.36 In 2019, we noted that our simulation modelling did not suggest that this project was required from a processing perspective. However, we noted the interrelatedness of this project with the Central Search project. It also provides additional retail and F&B facilities, which we noted would be required in a core centralised facility such as this in order to maintain historical Commercial Revenues elasticities with respect to passenger numbers. We propose to continue to allow for this project.

#### *CIP.20.03.015 – T1 Baggage Reclaim - Proposed Allowance €22m*

16.37 With increased passenger circulation, baggage reclaim belts will be expanded to meet increased demand. Additionally, existing finishes and appearance will be refurbished. This project has not changed in scope since 2019.

16.38 We propose to continue to allow for this project and continue to consider it Flexible.

#### *CIP.20.03.017 – T1 Shuttle, Bus Lounges, Injection Points - Proposed Allowance €3.7m*

16.39 This project is broadly in line with 2019. It aims to refurbish the old central terminal building (OCTB) ground floor to create a new bus lounge space, along with a dedicated injection point and associated kerbs. The upgrades include new canopy to immigration injection point, new covered walkway and lighting on the forecourt, upgraded washrooms, new boarding card desks, installation of solar shading interior blinds etc.

16.40 Although there is no major change in scope for this project, there are some minor design adjustments included. These include improvements to the canopy provided at the bus injection point, bus turning space, covered walkway to increase number of bus injection points and width increase of the bus injection point corridor. We propose to continue to allow for this project, and consider it Flexible.

#### *CIP.20.03.018 – T1 Immigration Hall - Proposed Allowance €1.9m*

16.41 This project remains in line with 2019. It provides for a reconfiguration of booths and e-gates to increase capacity of the T1 immigration hall. The reconfiguration includes an expansion of the T1 hall by providing 3 additional booths and 1 additional e-gate as well as relocating the recently installed e-gates to the Pier 1 side of the hall.

16.42 We propose to continue to allow for this project. The project will be considered Flexible.

#### *CIP.20.03.020 – T2 Check-in Optimization - Proposed Allowance €14.7m*

16.43 This project is in line with the 2019 project. The expansion will include check-in desks, bag drop positions and self-service kiosks. The area will also be reconfigured for increased mobility and queue space.

16.44 We propose to continue to provide a Flexible allowance for this project.

### *CIP.20.03.021 – T2 Central Search - Proposed Allowance €5.2m*

16.45 This project is in line with the 2019 project. It proposes to reconfigure and expand the queueing area to include ATRS lanes and C3 scanners, to increase the capacity at Central Search.

16.46 We propose to continue to include a Flexible allowance for this project.

### *CIP.20.03.024 – Terminal 2 Immigration Hall Reorientation - Proposed Allowance €2.2m*

16.47 This project scope was previously included within CIP.20.03.029 (Pier 5). It is now listed as a separate project (with the corresponding scope removed from Pier 5). The project will expand T2 Immigration Hall by installing additional immigration officer booths, along with a reconfiguration to optimise queue space and circulation.

16.48 This project has been updated from the CIP2020 and adjusted to reflect changes in the proposed Pier 5 design and associated arrivals routing. The originally proposed capacity provisions remain the same. The project outputs thus remain in line with 2019. We propose to provide for a Flexible allowance for this project.

### *CIP.20.03.028 – T2 Early Bag Store and Transfer Lines - Proposed Allowance €31.9m*

16.49 This project is in line with the 2019 project. Dublin Airport initially proposed to defer it in the revised CIP but, following airline support, has again included it. It provides for an Early Bag Store (EBS) with capacity for 950 hold bags. When early bags arrive at the sorter before the Make Up Positions (MUPs) are available, this can prevent or delay other bags from reaching their allocated MUPs. Thus, this project effectively enhances hold baggage processing capacity in T2.

16.50 The current three transfer input lines will be increased to four to meet projected passenger traffic at 40 mppa. It also provides for an additional inter-terminal transfer line.

16.51 We propose to continue to provide an allowance for this project and to include it in StageGate, as in 2019.

### *CIP.20.03.029 – Pier 5 - Proposed Allowance €292.3m*

16.52 This major project provides for a single sided, four storey pier off T2:

- With airbridges serving 8 NBE (narrow body equivalent)/4 widebody FEGP and A-VDGS equipped stands (apron works are included in CIP.20.03.031).
- With a direct link to US Preclearance, each gate being vertically segregated meaning than any gate can be independently used in Preclearance/Non-Preclearance mode.
- With bussing injection points and 6 bus gates at apron level.

16.53 Thus, the project outputs remain broadly in line with 2019. There are a number of scoping specifics/adjustments proposed, relative to the 2019 project:



- The inclusion of cargo warehouse development costs at Corballis Park is the most significant change in the scope of the project. This is for the relocation of the cargo operators due the required demolition of cargo terminals 1 and 2. Previously, only secure access to a development site across the RN 132 road was included in the Pier 5 allowance. We understand that the scope adjustments relating to cargo operations has been developed in consultation with the relevant cargo operators.
- The design has been reviewed and refined from a sustainability perspective, such as in relation to building fabric and mechanical and electrical systems.
- Relatively minor changes to the functionality of the pier. For example, gate lounges with automated e-gates for document check.
- The T2 Immigration Hall works have been stripped out of this project, now being a separate project, CIP.20.03.024.

16.54 In general terms, the design of the pier seeks to maximise flexibility. There is a lot of detail now available in relation to the cost estimate for this project, compared to 2019. The IFS' role is to consider issues such as the efficiency of the referenced construction components, both now and as the project goes through StageGate. We expect that the revised approach to cargo will ultimately reduce the extent of displacement of property rent Commercial Revenues due to this project.

16.55 We note the continued support for this project to be progressed quickly among some airport users, and we understand the rationale for seeking to maximise flexibility in the design of a project such as this. This project is a key contributor to facilitating the 40 mppa passenger airport. It is also a key part of the development of the south apron as a secondary hub, in line with the 2015 National Aviation Policy.

16.56 We therefore propose to continue to allow for this project. We intend to make this a trigger project and it will go through the StageGate process.

#### *CIP.20.03.030 – US Preclearance - Proposed Allowance €75.4m*

16.57 This project proposes to re-orientate and expand the US Preclearance facility to increase TSA screening lanes to a minimum of 11, along with 30 Preclearance officer positions. Equipment upgrades will also be accommodated with security lanes fitted with ATRS equipment. The expanded space will accommodate secondary screening, increased queue space and staff accommodation. This original 2019 project has since been adjusted in the following ways:

- Additional floor in the Preclearance facility, including provision for optimised post-CBP Pier 5 link, circulation, seating, more retail space and F&B expansion.
- Additional second and third floor corridor links optimised for arrival and transfer routing.
- CBP baggage make-up area extension has been omitted.
- Temporary handler accommodation on the first floor and Arrivals and transfer corridors on 2nd and 3rd floor has been added.

16.58 The IFS has some outstanding questions in relation to the cost and scoping efficiency of this project, which will be addressed before the final decision.

16.59 We note the continued support of some airport users for this project. The current TSA and US Preclearance facilities require additional capacity to facilitate expected growth in US traffic. We propose to continue to allow for this project and have proposed it as a triggered project which will be included in StageGate.

#### *CIP.20.03.031 – South Apron Expansion - Proposed Allowance €178.6m*

16.60 The South Apron expansion project will enable the Pier 5 project discussed above. The plan will relocate nine existing narrow body stands to the southern edge of the apron and the development of dual code E taxi lanes.

16.61 Changes to the original project scoping assumptions include increased volume of onsite attenuation, developing a de-icing tank storage facility, additional GSE parking/ULD storage, and omission of the previously planned South Apron Passenger Boarding Zone (PBZ) on the grounds of jet blast. Demolition and relocation of various ancillary buildings, development of changed areas of airfield pavement and diversion of the cuckoo stream are other proposed scope changes.

16.62 The IFS has some outstanding questions in relation to the cost and scoping efficiency of this project, which will be addressed before the final decision.

16.63 We note the continued support from some users for this project. We also note their concerns over the omission of the PBZ; this question could be considered further by stakeholders as the project progresses through StageGate. We propose to allow for this as a triggered project which will go through the StageGate process.

#### *CIP.20.03.033A – Enablement of Pier 3 for Precleared Passengers - Proposed Allowance €8.4m*

16.64 This project is in line with the 2019 project. It proposes to use Pier 3 to address an anticipated Preclearance capacity shortfall with a shuttle bus connection and reconfiguration of existing widebody gates. The project thus increases the operational flexibility of existing stands to meet a need for increased US Preclearance enabled stands.

16.65 We note the continued support from some airport users for this project. We continue to allow for this project and categorise it as Flexible.

#### *CIP.20.03.034 – Pier 3 Immigration - Proposed Allowance €9.9m*

16.66 The purpose of this project remains broadly in line with 2019, namely to increase the capacity of the Pier 3 Immigration processor in line with the 40mppa schedule.

16.67 The pier 3 immigration area will be reconfigured, refurbished and expanded to provide greater queueing space and increased processing booths under this project. Dublin Airport has undertaken a site survey and design refinement since the project was approved in 2019. This has led to Dublin Airport refining the requirements of this projects due to added complexity, mechanical and electrical issues. Additionally, it has

proposed a change in costs due to some changes in the scope of the project:

- Demolition and reallocation of new toilets to maximise queuing efficiency.
- Additional immigration booths.
- Removal and relocation of high-mast lighting electrical room.
- Additional communications equipment room for operational resilience.

16.68 These changes (together with escalation) have led to an increase in the estimated (nominal) cost of the project from €4.7m to €10m. Our terminal simulation modelling in 2019 identified that the project, as then scoped, would fall short of delivering the required capacity to meet the 40 mppa schedule. Dublin Airport has correspondingly increased and enhanced the planned incremental capacity to be delivered by the project.

16.69 We propose to continue to allow for this project, and make it a Flexible allowance.

#### *CIP.20.03.036 – North Apron Development - Proposed Allowance €206.8m*

16.70 The output of this project remains broadly in line with 2019, although Dublin Airport has proposed certain scope changes as the design of the project has developed. Module 1 of the Pier 1 extension is proposed to be progressed during this period (though is not expected to be complete until later in the decade). Module 2 is proposed for progression in the subsequent period, if then required.

16.71 This project will increase the capacity of the North Apron via the addition of a new Pier 1 East. This will be constructed east of the existing Pier 1. Demolition and clearance of Old North Terminal Building, Hangar 1 & 2 etc., will first take place, before the building of the two-story Pier 1 East.

16.72 The main scope changes when compared to the original 2019 project is to add an extra MARS stand and to move the departures level to the first floor. The Module 1 design has also been reviewed and refined from a sustainability perspective, in relation to building fabric and mechanical systems.

16.73 The efficiency of the proposed cost and scope assumptions to deliver these project outputs falls within the remit of the IFS. We note the support of some airport users for this project, and indeed in some cases support for progressing Module 2 of the Pier 1 extension also. We continue to allow for this project and have made it a trigger project which will progress through StageGate.

16.74 We note the concerns expressed by occupants of hangars on the North Apron, including MRO service providers, which are intended to be demolished to facilitate the Pier 1 extension. CIP.20.04.021 (West Apron Accommodation & Welfare Facilities) now includes a feasibility study into the development of MRO on the West Apron. We have also engaged directly with some of these stakeholders. We consider that finding a solution to relocating the MRO operators is in the interests of not just the MRO operators but also the broader airport community because:

- Retaining MRO services on-site is in the interests of airport users.
- An alternative rented facility would reduce or reverse the Commercial Revenue loss associated with the demolition of the hangars.

16.75 We also note that the 2015 National Aviation Policy commits to maintaining and building Ireland’s attractiveness as a base for MRO activities. We are open to considering a specific proposal for a replacement facility either in advance of the Final Decision later this year, or alternatively the specific proposed solution could be developed through the StageGate process for the North Apron Development project, once the feasibility study is concluded and a specific proposal has crystallised.

#### *CIP.20.03.051B – West Apron Underpass – Pier 3 - Proposed Allowance €228.8m*

16.76 As in 2019, this project proposes a new vehicle underpass below Runway 16-34 linking Pier 3 to the western campus. The need for this outcome remains unchanged since 2019, namely the level crossing of RW 16-34 can only continue in operation until the North Runway opens, at which point vehicle access from east to west would only be available via the perimeter roads around the northern or southern main runways. The underpass will provide ground service vehicle connectivity between the eastern campus and the West Apron, separated from Runway 16-34 and adjacent major taxiways, also providing enhanced safety relative to the current road layout. The underpass is a first phase in the broader 55 mppa masterplan which relies on significant passenger operations from the West Apron. Initially, more extensive use of the West Apron for non-passenger operations frees up the eastern campus for passenger operations.

16.77 However, the scope of works to deliver this outcome has changed since 2019. The main changes are as follows:

- Changing the underpass from single cell to dual cell, providing greater flexibility, resilience and safety. This is the primary driver of the increased cost.
- The planned horizontal alignment – resulting in a 60m shortening overall.
- The inclusion of “future pipework” to facilitate drainage surface water drainage masterplan.

16.78 We have reviewed the ARUP/Ricondo report (April 2022) which considers the dual/single cell options. This report concludes that the dual cell configuration is required, and a single cell configuration can essentially be ruled out on the grounds of safety, regulatory compliance, and operational effectiveness.

16.79 Overall, these changes (together with construction price inflation) have increased the estimated (nominal) cost of the project from €170m to €245m. Like 2019, there are mixed views on the project, with those who use the West Apron strongly supportive, while certain airlines are either opposed on the grounds of cost and/or consider that the north and south apron developments should be prioritised over this project.

16.80 While the direct benefits for airlines operating on the eastern campus, at least in the short term, may be relatively limited compared to the cost of the project, the same

can be said of the north apron/south apron/terminal capacity projects for those who operate on the West Apron. As in 2019, we continue to assess that the development of reliable, safe, and efficient east-west connectivity is in the interests of airport users.

16.81 Given the scale and complexity of the project, we considered whether this should be a trigger project. While the planning risk for this project is likely to be lower than the North Apron/South Apron projects, we consider that there remains a risk of significant delay in delivering this project by 2026 as planned. Ultimately, we propose to include this project without a trigger, but we would welcome views from stakeholders on whether this should be a triggered project.

16.82 This project will enter the StageGate process.

*CIP.20.03.072 – Additional Booths (Pier 4 and T2 Transfers) - Proposed Allowance €0.7m*

16.83 The new Pier 5 and other expansions will lead to increased transfer hub activity. This minor project will expand the current transfer capacity by installing additional immigration officer booths and automate e-gates.

16.84 There is no scope change in this project compared to 2019. We propose to continue to allow for this project and continue to designate it Flexible.

*CIP.20.03.081 – Apron 5H & North Apron Taxiway Rehabilitation - Proposed Allowance €93.1m*

16.85 This project was allowed for originally in the 2014 Determination, through the Programme of Airport Campus Enhancement (PACE), and then rolled forward into the 2019 Determination. It provides for 12 remote code C aircraft parking stands, which can be combined to accommodate five widebody stands. It also includes North Apron taxiway pavement refurbishment.

16.86 The original PACE project has been expanded to include enhanced functionality in relation to the stands being delivered, but also due to complexities which were not known when the project was costed initially. It now includes:

- Two additional code E aircraft parking stands (MARS configuration).
- Relocated sub-station F.
- Site clearance and redundant stockpile removal.
- Contaminated soil removal, and treatment.
- Increased planning contribution being sought by the local authority (which is currently under appeal).

16.87 We note the increased importance of this project given that the Apron 5M project has been deferred. Most of the cost estimate is now based on the tender return that Dublin Airport has received from one of its framework contractors. The project has now received full planning permission and is expected to start the main construction phase

shortly. Dublin Airport hopes that the first new stands (installed temporarily) will be available in time for part of Summer 2023.

- 16.88 We propose to continue to allow for this project, alongside the other PACE projects which have not yet been completed. As per the 2014 Determination, this project is a Deliverable.

## New Projects

- 16.89 New proposed capacity projects which have been added to the CIP since 2019 are discussed below.

### *CIP.20.03.074 – Taxiway R Widening Works - Proposed Allowance €6.2m*

- 16.90 This project proposes development of Taxiway R between Links 1 and 2 to enable continuous Dual Code E Operations between the north and south of the Airfield.

16.91 The project is primarily made up of taxiway re-alignment and pavement works. However, it also includes centre and edge taxiway lighting, drainage and attenuation, taxiway markings and signage, realignment of stand 404C lead-in, AVDGS and fuel hydrant, reallocation of jet blast fence, apron lighting and GSE parking.

16.92 We note the support from some airport users for this project. Our simulation modelling has previously shown the benefit of unrestricted dual code E taxiways between the north and south aprons. We propose to include this project in StageGate alongside the other taxiway projects.

16.93 The proposed asset life of 20 years is lower than we would expect, which is also noted by the IFS. The PACE taxiways were all assigned an asset life of 30 years. Thus, we have assigned this project an asset life of 30 years.

### *CIP.20.03.075 – Fuel Hydrant Network - Proposed Allowance €29.3m*

16.94 This project will deliver the extension of existing fuel pipes, installation of control valves and apron discharge points to each aircraft position in Pier 1 (Eastern End) and Pier 3. The project is superseding the original CIP.20.03.075 “Hydrant Enablement – Pier 2 and 3” proposal.

16.95 In the West Apron, there will be a limited extension of existing fuel pipes, installation of control valves and the development of a “stop-gap” inter-plane to allow western bowser loading. Ducts and sleeves will be installed in Apron 5H for future hydrant pipe installation to 5H stands.

16.96 Provision of fuel hydrants in place of existing tanker arrangement will allow for a more environmentally friendly, fast and reliable method of refuelling, while reducing the number of vehicles on the apron. We note the support for this project and have made an allowance for it. We accept Dublin Airport’s suggestion to consider this project in the StageGate process.

### *CIP.20.03.076 – De-Icing Consolidation - Proposed Allowance €1.3m*

- 16.97 This minor project replaces the original CIP2020 project to provide a remote de-icing pad at Runway 10R. It aims to consolidate the fuel strategy across the airfield as well as develop dedicated glycol storage facilities in the North and South Aprons.
- 16.98 We agree with Dublin Airport that this project will support the passenger experience, especially during severe weather events. We also note support from some airport users for this project. We propose to allow for it and categorise it as Flexible.

### *CIP.20.03.077 – South Apron Airside Support Centre - Proposed Allowance €10.8m*

- 16.99 Under this project, the existing Ground Handler Accommodation will be moved to an alternative location to facilitate the South Apron redevelopment. The existing Flight Catering building will be used for this purpose.
- 16.100 Dublin Airport advises that a benefit of this building and planned re-modelling is that it will provide accommodation for a construction management compound and welfare facility in the heart of the South Apron site during its construction, thus offsetting site set up and management costs, and then subsequently it will provide the ground handler accommodation.
- 16.101 The Commission has allowed for this new project as part of the overall South Apron development, but given the extended timeline and associated planning risk with the South Apron projects, we make it a trigger project and categorise it as StageGate.

### *CIP.20.03.078 – Pier 4 De-Flex - Proposed Allowance €3.9m*

- 16.102 This project provides for an apron level corridor to the side of Pier 4 to enable flexible routing of departing passengers between apron level gates and airbridge vertical circulation cores. It partly addresses a current issue with the design of the pier whereby, if US Precleared flights are delayed, this prevents the handling of non-US Preclearance flights, which has a knock-on effect on those flight schedules with consequent delays for passengers. It allows apron level gates to be used when the first-floor gates are required for non-CBP operations.
- 16.103 This project enhances the flexibility of pier 4. We allow for it as being in the interests of airport users and make it a Flexible project.
- 16.104 As suggested by the IFS, we have set the asset life of this project to 30 years to align with the remaining asset life of the construction components of Pier 4.

### *CIP.20.03.079 – Code E Engine Test Facility - Proposed Allowance €15.5m*

- 16.105 This project would upgrade the existing Code C Engine Test Site facility to accommodate Code E aircraft, which will be accomplished by expanded pavement, Code E jet blast fencing, high mast lighting, refuge and equipment storage and drainage & attenuation. The facility will be designed to have a high usability factor, minimal operational constraints and accommodate engine testing up to and including full power runs.

16.106 The existing code E engine testing location will no longer be available with the introduction of the North Runway in 2022 and associated planning conditions. We accept the requirement to replace this facility in the interests of airport users who operate code E aircraft.

16.107 We propose to allow for this project and categorise it as StageGate.

#### *CIP.20.03.080 – 10L/28R Taxiway Exit AGL - Proposed Allowance €4.6m*

16.108 The project would upgrade the taxiway centreline lead-on Airfield Ground Lights (AGL's) on the Northern and Southern Runways. This will be accomplished by replacing the existing taxiway centreline fittings associated at all entry points to the Northern and Southern runways with coloured AGL fittings.

16.109 As part of the Runway 16-34 Low Visibility Procedures (LVP) lighting project, Dublin Airport has committed to demonstrate compliance with EASA recommendations.<sup>50</sup> This project is thus in the interests of users to ensure compliance with relevant EASA codes. We propose to allow for this project and designate it as Flexible.

### *Commercial*

16.110 Projects in this grouping are intended to improve Dublin Airport's commercial offering and maintain or enhance Commercial Revenues. Most of these projects were included in the original 2019 Determination.

16.111 Dublin Airport has also proposed several new projects. All projects outlined below are proposed to have flexible allowances, apart from 'Car Hire Consolidation Centre' (CIP.20.04.002) which is a Deliverable as in 2019, and 'OCTB Refurb' (CIP.20.04.034) which is proposed for the StageGate process.

16.112 Dublin Airport presented business cases for the commercial projects included in the CIP, showing a positive return on the basis of a WACC of 4.22%.

16.113 We propose to allow for each proposed project, except for 'Drop off/Pick Up' (CIP.20.04.032). This project is discussed from Paragraph 16.159 below.

#### *CIP.20.04.001 – Car Parking Management System - Proposed Allowance €3.7m*

16.114 This project is in line with the project presented in 2019. It would replace car park management equipment (new software, entry/exit terminals, pay stations, barriers, CCTV) in the short term and long-term carparks. The current equipment dates from 2006; Dublin Airport advises that it will no longer be supported by the vendor after 2022 and thus we consider it to be End of Life. Furthermore, we note that the new software and equipment will have improved functionality, including improved integration capability with airline services or other Dublin Airport travel services such as the airport lounges and FastTrack.

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<sup>50</sup> See Page 132:

[https://www.easa.europa.eu/sites/default/files/dfu/Annex%20to%20EDD%202017-021-R%20-%20CS-ADR-DSN%20Issue%204\\_0.pdf](https://www.easa.europa.eu/sites/default/files/dfu/Annex%20to%20EDD%202017-021-R%20-%20CS-ADR-DSN%20Issue%204_0.pdf)



16.115 We agree that this project is in the interests of airport users in order to protect existing carpark revenues and improve the customer experience. We therefore continue to allow for this Flexible project.

#### *CIP.20.04.002 – Car Hire Consolidation Centre - Proposed Allowance €30.4m*

16.116 This is a major commercial project which aims to expand the car hire facilities at Dublin Airport in three phases. The project output is broadly in line with 2019, though now proposes to deliver more carparking spaces. The first two of these phases will be delivered in current CIP period by 2026. The third phase will conclude in the next period. In 2019 we received correspondence from a number of car rental operators, in which they both highlighted insufficient current capacity and express support for this project.

16.117 The first phase will add approximately 4000 car hire storage and return spaces. Phase two will expand and upgrade existing infrastructure to replace, maintain and service end-of-life assets such as roller doors, skylights, roof leaks etc. Phase three, which will be delivered in the next CIP period beyond 2026, will add additional mobility improvements such as pedestrian access and bicycle lanes. The scope of this project has increased from an initial goal of providing 3,000 additional spaces in 2019, to 4,000 now. The cost of the project has increased due to the additional scope and adjustment to the escalation allowance.

16.118 We note that improved car-hire facilities will enhance the passenger experience for those hiring cars. We also expect this project to drive a significant increase in commercial concessions revenue. We continue to allow for this project and make it a Deliverable. An uplift of €0.8m (linked to the delivery of phase 1) has been included in our commercial concessions revenue forecast for 2026.

#### *CIP.20.04.003 – Food & Beverage Fit-out (T1X) - Proposed Allowance €2.5m*

16.119 This project is in line with the project allowed for in 2019. It provides shell and core fit-out for a new Food and Beverage (F&B) unit in the T1 departures lounge. Dublin Airport had previously identified that F&B is now underprovided in this area, relative to a benchmark F&B space requirement for a departure lounge of 450 square metres per million annual passengers.

16.120 This developed unit will add 98m<sup>2</sup> kitchen space for increased food and beverage options for consumers. It will also provide new storage facilities.

16.121 We propose to continue to allow for this project and have included a Commercial Revenue uplift of €0.2m from 2024.

#### *CIP.20.04.004 – Digital Advertising Infrastructure - Proposed Allowance €7.9m*

16.122 This project provides for digital advertising infrastructure. Relative to the 2019 project, and given the extended regulatory period, it now includes replacement of 64 existing AerPod screens and replacing them with new Samsung screens.

16.123 The original CIP project proposed the replacement of three AerPods due to the remaining being at End of Life. Dublin Airport is proposing an increased replacement

of 64 AerPods due the increased 2 years in the current CIP period, during which more AerPods will become End of Life.

16.124 This additional scope, combined with escalation, has made this project estimate significantly more expensive than 2019. However, we also include an offsetting Commercial Revenue forecast uplift in the 'Property Advertising' category, which increases from €0.2m in 2023 to €0.8m in 2026.

#### *CIP.20.04.005 – Eastlands Long Term Car Park - Proposed Allowance €11.7m*

16.125 This project is essentially in line with the 2019 project, but adjusted for escalation. It provides 2,000 additional car parking spaces for the Red Long-Term carpark to satisfy demand identified in the business case. Spaces will be available to be used interchangeably for hire car storage, when there is insufficient capacity in the car hire facility. Along with the parking spaces, car park lighting, passenger kerb and signage as well as bussing facilities will be part of the scope.

16.126 We propose to continue to allow for this project and consider it Flexible. This project is expected to require an extended planning process, thus will not be delivered within the revised regulatory period. We therefore profile the capital cost remuneration to commence in full in 2029 as per the project timeline. We also do not include a carparking revenue uplift for this project within the current regulatory period.

#### *CIP.20.04.007 – T2 MSCP - Proposed Allowance €19m*

16.127 The scope of this project is in line with the 2019 project. It adds two floors to the T2 Multi Storey Carpark, with approximately 680 spaces, in order to meet the Short-Term car parking demand identified in the business case.

16.128 The project is expected to complete within 2025. We allow for this project to progress and provide an allowance adjusted for inflation. Given the timeline for this project, we profile capital cost remuneration in full from 2026, and also include a carparking revenue uplift of €1.4m in 2025 and the full uplift of €2.9m in 2026.

#### *CIP.20.04.009 – Staff Car Park - Proposed Allowance €6.9m*

16.129 This project would provide for 1,480 spaces for staff car parking in two phases. 1,000 of these will be provided in the first phase, 480 will be provided in the second phase. This still leaves some under provision relative to the Dublin Airport identified 40 mppa requirement, which Dublin Airport states will require a change in modal split (shift to public transport) or using the public car parks during off peak periods.

16.130 We propose to continue to allow for this Flexible project. Like the T2 MSCP project, we profile capital cost remuneration in full from 2026, and also include a carparking revenue uplift of €0.3m in 2025 and €0.6m in 2026.

#### *CIP.20.04.016 – Platinum Services Upgrade Works - Proposed Allowance €7.2m*

16.131 This project encompasses general décor, furniture, and kitchen facilities upgrades, as well as a capacity expansion, of the Platinum Services facility.

16.132 We note that no upgrades have been assumed in the business case, but rather the expected revenues are assumed to be generated from the expansion of the facility only. The corollary of this is that the upgrades are not required to deliver the incremental revenues. However, we agree with Dublin Airport that facilities such as these require frequent renewal in order to protect existing revenues and customer satisfaction. We have therefore allowed for both aspects of this project.

16.133 Changes to scope from the original plan include: platinum ground floor reconfiguration, platinum first floor expansion, platinum car park services upgrade and omission of expansion of the airside porch with a new communal area. We consider that these changes will improve options available to the consumers and improve satisfaction. We allow for this project. We also include a Commercial Revenue uplift of €0.6m in 2024, rising to €0.8m in 2026.

#### *CIP.20.04.017 – Airline Lounges - Proposed Allowance €16.2m*

16.134 This project aims to accomplish three elements, an airline lounge upgrade, an increase in airline lounge capacity, and an airline lounge relocation.

16.135 It will enhance the general décor, furniture and shower facilities, as well as additional charge points. Again, the expected incremental revenues are assumed to be generated from the expansion of the facility only. To increase airline lounge capacity, Dublin Airport proposes to expand the current Eastern and Terminal 2 lounges by developing a new upper-level mezzanine floor in each. Finally, the plan makes way for CIP.20.03.012 (Terminal 1 Central Search- Relocation to Mezzanine Level) by relocating Terminal 1 Airline lounge to a new location at the departure level.

16.136 We propose to continue to allow for this project. We also include a Commercial Revenue uplift of €0.6m in 2024, rising to €0.8m in 2026.

#### *CIP.20.04.018 – Fast Track Improvements - Proposed Allowance €6.6m*

16.137 As in 2019, the purpose of this project is to upgrade to the current departure facility, through visual improvements, a barista bar, and ‘seamless security equipment’; the latter includes an automated entry system together with security equipment which would further speed up the process for passengers. Dublin Airport believes that these improvements are required in order to protect Fast Track revenues through maintaining a competitive edge over central search. The project also includes a new arrivals Fast Track product in both terminals, which would effectively involve a ‘queue skip’ into the existing immigration lanes.

16.138 Scope changes to the original project include the expansion of T1 security Fast Track to 2 lanes, relocating of existing staff security screening and the costs for fit-out of the relocated T1 Fast Track facility are now included which have not been captured by any other project.

16.139 We propose to allow for the project and consider it Flexible. We also include a Commercial Revenue uplift of €0.6m in 2023, rising to €1.1m in 2026.

#### *CIP.20.04.021 – West Apron Accommodation & Welfare Facilities - Proposed Allowance*

### €3.1m

16.140 The project provides for the construction of new commercial office, storage, and welfare facilities on the West Apron. As well as providing Commercial Revenues, this project will encourage use of stands on the West Apron and the planned future Apron 5M, particularly for cargo operators and standby aircraft, through the provision of suitable support facilities.

16.141 As the scale of the welfare facilities to be delivered under this project has reduced relative to the 2019 project, the cost of this project has reduced. However, a feasibility study for the development of the Western Apron MRO facility is also now part of the scope for this project, which is related to the intended demolition of North Apron hangars to facilitate the Pier 1 extension.

16.142 We propose to allow for this project and include a commercial property uplift of €0.3m per year from 2024.

### *CIP.20.04.023 – Post US Preclearance Food & Beverage Facility - Proposed Allowance €4.1m*

16.143 This project is in line with the 2019 project. It provides for a shell and core fit-out for a Food & Beverage Facility in Pier 4, post US Preclearance. Currently, the F&B offering post US Preclearance is limited.

16.144 We propose to allow for this project as Flexible and include an uplift of €0.3m from 2026.

### *CIP.20.04.025 – Commercial Property Refurbishment - Proposed Allowance €6.5m*

16.145 This is a broad allowance for the maintenance and refurbishment of the suite of commercial properties, rather than tied to specific works. It is unchanged from 2019 other than an escalation related adjustment.

16.146 This project is in the interests of users in order to protect these revenues. A similar allowance was provided for in the 2014 Determination, which has been spent in full; Dublin Airport notes that key works delivered in the current period include the refurbishment of Sky Bridge House, and airline accommodation. The potential uses of this allowance include fitting out of offices, furniture minor mechanical and electrical services, minor life safety systems work, and IT.

16.147 We allow for this project.

### *CIP.20.07.010 – Office Consolidation and Refurbishments - Proposed Allowance €18.3m*

16.148 The output of this project is broadly in line with 2019, however, Dublin Airport states that the project is more complex than initially anticipated due to the age of the building. It includes the refurbishment of floor levels 4 and 5 in Terminal 1 to create office accommodation for Dublin Airport staff as well as the creation of a consolidated plant enclosure on level 6.

16.149 The IFS has a number of outstanding clarifications and queries on this project as it now

stands, which will be addressed for the final decision. Scope changes include office space refurbishment decrease on level 4 and increase on level 5. Also, minor refurbishments of cargo 6 have been omitted from the project.

16.150 We propose to continue allow for this project and include an uplift of €0.2m in 2025 and then €0.3m in 2026.

#### *CIP.20.08.001 – Retail Refurbishments, Upgrades, and New Developments - Proposed Allowance €10.9m*

16.151 As in 2019, this project provides for retail refurbishments, and new shops. It also includes an operational contingency budget to react to unforeseen opportunities/issues in order to drive revenues.

16.152 Scope changes include: fit-out of the new module 1 retail store has been added to the project, fit-out of the new post-CBP retail store, located on the ground floor of the CBP building has been added to the project, and an upgraded T1 arrivals retail store has been added as well.

16.153 We propose to allow for this project, and include a retail uplift of €5.8m from 2025 (we also allow for offsetting additional Opex in our retail staffing forecasts).

#### *CIP.20.08.002 – Retail Marketing & Media Installation - Proposed Allowance €1.8m*

16.154 This project is in line with the 2019 project. It will install digital advertising into retail units. This includes FIDs, interactive displays, video walls and various forms of store branding.

16.155 We propose to continue to allow for this Flexible project along with a Commercial Revenue uplift of €0.4m from 2025.

### **New Projects**

16.156 Dublin Airport has proposed several new Commercial Revenue projects, which are discussed below.

#### *CIP.20.04.031 – Fuel Farm Welfare - Proposed Allowance €2.4m*

16.157 Dublin Airport assesses that the current fuel farm building has capacity constraints which leaves operators who would be willing to take up space unaccommodated. This project proposes an extension to the existing building to accommodate existing and future operators. The project aims to add additional office space and welfare facilities. This extended space will add 500m<sup>2</sup> in area. This extended space will also provide offices and welfare facilities for such plane operators.

16.158 We propose to allow for this project and consider it Flexible. We also include an uplift of €0.3m from 2025.

#### *CIP.20.04.032 – Drop off/ Pick-up*

16.159 The project aims to introduce a paid drop-off and pick-up facility at T1 and T2 kerbs.

The free drop-off/ pick-up zone will be located remote of the two terminals linked via a shuttle bus service. Dublin Airport asserts that this will enable them to provide a revenue generating service, while at the same time increasing road capacity and reducing congestion. If permitted, the allowance for this project will be used to develop a physical infrastructure along with the technology to enable the deployment of the paid kerbside service.

16.160 We believe that significant uncertainty remains in relation to this project, including details of the commercial proposition and the objectives of the project. If we were to allow for this project, we would likely assign it a longer asset life than proposed by Dublin Airport, and further work would be required in relation to estimating the Commercial Revenue uplift.

16.161 We therefore propose to disallow this project. We also disallow the associated Opex and Commercial Revenue uplifts.

#### *CIP.20.04.034 – OCTB Refurbishment - Proposed Allowance €8.5m*

16.162 This project aims to refurbish the Old Central Terminal Building (OCTB) at Dublin Airport to create new commercial streams. Although no detailed plan on refurbishments is provided, the airport plans to develop the General Office accommodation, Airline or handler accommodation as well as create a Business and meeting centre space.

16.163 The scope covers a feasibility study, design, and construction of light refurbishment of all three landside floors as well as modification and improvements to the adjoining front elevation landscaping and access.

16.164 CEPA/Taylor Airey has not included increased rent being paid to daa group by the Dublin Airport regulated entity in relation to the relocation of staff from OCTB into Dublin Airport City (which is not part of the regulated entity). Given that, at least in part, the relocation of these staff is linked to the development of the OCTB, we correspondingly do not include a Commercial Revenue uplift for this project within the review period 2023-2026. These interactions may be considered further ahead of the Final Decision, to arrive at an optimum overall treatment which remains consistent across the building blocks.

16.165 We propose to allow for this project and accept Dublin Airport's suggestion that this project be considered in the StageGate process.

#### *Sustainability*

16.166 With plans to reduce net emissions coming into effect, especially the goal of reaching net-zero carbon emissions by 2050 and a 30% reduction in emissions by 2030, these projects have been proposed to meet these regulations.

16.167 Phase 1 of this sustainability plan aims to achieve reductions through the replacement of old infrastructure, developments of a solar farm and small energy efficiency projects. This phase also assumes anticipated improvements in national grids energy efficiency. Phase 2 covers projects which will assist in achieving the revised 50%

reduction target. After these two phases, the aim is to achieve the reductions in large part, although there is expected to be a gap between accomplished and set goals. Phase 3 will aim to close this gap and set a path to reach net-zero emissions by 2050.

16.168 Dublin Airport proposes that these Sustainability projects be predominantly considered as StageGate projects. We agree with Dublin Airport. The uncertainty on the specific output, scope and costs of these projects means they will require further consultation to deliver the required project outputs most efficiently. The StageGate process will be used to assess what the project will deliver in terms of reaching targets, and if it is an efficient way to achieve it.

16.169 The primary purpose of this category of expenditure is to enable Dublin Airport to meet its sustainability requirements and obligations. This aligns with our objective in relation to government policy described in Section 3. However, we expect that some of these projects will also ultimately provide Opex and Commercial Revenue benefits, although these are likely to materialise more significantly after this review period. For now, CEPA/Taylor Airey has only included an explicit Opex saving of €0.3m in 2026, associated with CIP.20.09.003 (Anaerobic Digester). However, we and CEPA are open to considering further specific evidence on the potential interaction with other building blocks within the period 2023-2026. We also note that projects such as Airport Charging, Sustainable Fleet, FEGP Phase 3, and Terminal 2 Sustainable Upgrade, include a scope of works which previously would have been included within Asset Care. These projects therefore reduce the requirement for expenditure within the Asset Care groupings, which we consider supports our proposed approach to not also include the proposed additional pro-rata allowance to reflect the longer regulatory period.

16.170 With the exception of CIP.20.03.052 (Surface Water Environmental Compliance), we profile the allowances for these projects over five years 2023-2027, given our expectations around the timeline for delivery of the programme. CIP.20.03.052 is not a new project but has been rolled forward from the original 2019 investment programme.

#### *CIP.20.03.052 – Surface Water Environmental Compliance - Proposed Allowance €91.4m*

16.171 This is a refinement of the 2019 project of the same name, which was then included within the Capacity projects. It aims to upgrade the existing surface water collection network and develop improved storage for polluted water runoff from de-icing process. This will improve water quality in local waterways. The 2019 project was then intended to be the first phase of a three-phase programme to overhaul the management and treatment of surface water run-off across the airport, to meet discharge limits under Trade Effluent Discharge Licences (TEDL).

16.172 The original project has been refined and the proposed cost has increased. The IFS has some outstanding questions regarding the potential for further value engineering within the revised project, which will be further assessed ahead of the final decision.

16.173 We assess that the output of this project remains necessary to meet regulatory requirements. We propose to allow for this project and include it in the StageGate process.

## New Projects:

### *CIP.20.09.001 – Airport Charging - Proposed Allowance €72.1m*

16.174 This project aims to provide charging infrastructure for electric vehicles across the airport campus. This will be accomplished over three stages. First, charging facilities for Dublin Airport fleet and car parking will be installed. Second, Airside charging facilities will be provided for third parties. Finally, charging facilities for public car parks, car hire, and other areas on the broader campus will be installed.

16.175 Although officially a new project, it builds on the original CIP.20.01.071 Electric Charger Network Facilities project which allocated €1.6m to deploy electric vehicle charger facilities, including underground ducting, civil works, electric charge facilities and associated futureproofing.

16.176 We recognise the importance of facilitating the change to electric vehicles, both those of Dublin Airport and third parties. Thus, this project is in the interests of airport users. We allow for this project and include it in the StageGate process.

### *CIP.20.09.002 – Alternate Fuels - Proposed Allowance €1.4m*

16.177 Dublin Airport has proposed to create a transition and development plan for infrastructure to implement the provision of Sustainable Aviation Fuel (SAF) at Dublin Airport. The deliverables of this project are not yet fully developed. At this early stage, the deliverables include a SAF research, consultation, trials and implementation plan, hydrogen and alternative fuel research as well as delivery of initially required infrastructure.

16.178 We recognise the importance of facilitating the increased use of SAF at Dublin Airport. Thus, this project is in the interests of airport users. We allow for this project and include it in the StageGate process.

### *CIP.20.09.003 – Anaerobic Digestion - Proposed Allowance €8.9m*

16.179 This project provides for the installation of an anaerobic digester, which will reduce Dublin Airport's dependence on fossil fuels, replaced by using biomethane generated on-site.

16.180 As with other Sustainability projects, further work will be required to confirm the exact scope of this project and its deliverables. This should be done in a consultative manner through the StageGate process.

16.181 We recognise the requirement to reduce carbon emissions and the contribution this project would make towards achieving legally mandated emissions reductions. We allow for this project and categorise it as StageGate. CEPA/Taylor Airey has also included an estimated Opex saving of €0.3m from 2026 due to this project, to reflect the reduced requirement for fossil fuel based energy.

### *CIP.20.09.004 – Sustainable Fleet - Proposed Allowance €16.7m*

16.182 The project aims to introduce new Low Emissions sustainable light and heavy vehicle



fleet. We have been provided with a detailed breakdown of the vehicles Dublin Airport intends to purchase under this allowance, separate to the original light fleet vehicle project.

16.183 This project builds on, and is additional to, the 2019 light fleet replacement project, contained within Asset Care. Dublin Airport states that 44 vehicles can be replaced at the original allowance, whereas the overall requirement is of 116 light fleet vehicles, plus an additional 15 to offset vehicle downtime related to electric vehicle charging and new assets.

16.184 The replacement of heavy fleet vehicles in this project similarly builds on the original 2019 heavy fleet replacement project. Dublin Airport states that 10 vehicles have been replaced from the original allowance and a further 9 can be obtained. There is a requirement to replace 50 heavy fleet vehicles and procure an additional 7 vehicles, for which Dublin Airport seeks an additional allowance.

16.185 We recognise the need for Dublin Airport to transition to sustainable fleet vehicles. We also note that, all else equal, this project will reduce required forward expenditure within Asset Care CSF. We propose to allow for this project and categorise the allowance as Flexible.

#### *CIP.20.09.005 – Fixed Electrical Ground Power Phase 3 - Proposed Allowance €11.4m*

16.186 This project will roll out Fixed Electrical Ground Power (FEGP) to all contact and remote stands which do not currently have it. This includes installing 45 new FEGP units in MRO stands on the North Apron, remote stands on the triangle, stands at the western end of Pier 1 and remote stands on the West Apron.

16.187 We have previously made allowances for FEGP units, and continue to support the installation of FEGP at the remaining stands at Dublin Airport. Relative to a diesel Ground Power Unit (GPU) or an aircraft Auxiliary Power Unit (APU), FEGP produces more efficient, reliable and environmentally friendly power source while also improving local air quality. Less use of GPUs also reduces traffic on the apron. Once delivered, these units will come under the scope of the Quality-of-Service up-time target.

16.188 We propose to allow for this project and categorise it as StageGate.

#### *CIP.20.09.006 – Photovoltaic Solar Farm Phase 2 - Proposed Allowance €36.6m*

16.189 To generate renewable electricity onsite, Dublin Airport proposes the development of additional photovoltaic solar farms. Building on the original allowed project 20.07.030, this project will expand Dublin Airport's renewable energy production by scaling up its solar farm capacity. The project proposes an additional solar photovoltaic farm development phase 2 to deliver up to 7MW.

16.190 We allowed for the first phase of the photovoltaic farm development in 2019. We recognise the requirement to reduce carbon emissions and the contribution the phase 2 project would make towards achieving legally mandated emissions reductions. We allow for this project and include it in StageGate.

### *CIP.20.09.007 – Mobility Improvements - Proposed Allowance €12.8m*

16.191 Dublin Airport proposes to improve public transport connectivity to and from the airport. This improvement includes T1 multistorey carpark atrium refurbishment, ground transport centre bus lane upgrades (including kerb, lighting, wayfinding, information display and bus shelter realignment) and general campus mobility improvements such as new walking and cycling lanes.

16.192 We note the benefit of seeking to enhance public transport use through improved facilities and campus layout, in a positive rather than punitive manner. We also note that improved signage, wayfinding and public transport information on arrival was one of the requirements identified by the PAG in 2019 and we continue to include a Quality-of-Service metric for this area.

16.193 We consider that this project is therefore in the interests of airport users and have made an allowance for it. We agree with Dublin Airport's proposed treatment of this project as Flexible.

### *CIP.20.09.008 – Terminal 2 Sustainable Upgrade - Proposed Allowance €99.4m*

16.194 This is a major project to replace the fossil fuel based heating system (HVAC & water) in Terminal 2 with a new system powered by more sustainable energy sources as well as to upgrade the building envelope to improve energy efficiency. The specific scope will be determined following a feasibility study.

16.195 We recognise the requirement to reduce carbon emissions and the significant contribution this project is expected to make towards achieving legally mandated emissions reductions. We allow for this project and categorise it as StageGate, to allow for the scope of the project to crystallise in a consultative manner.

16.196 We expect that this project would deliver significant Opex benefits, although this is likely to materialise in the next regulatory period rather than by 2026.

### *CIP.20.09.009 – Terminal 1 and Campus Sustainability Feasibility - Proposed Allowance €5.8m*

16.197 This relatively minor project provides for the preparation of a detailed feasibility study on the upgrade or replacement of Terminal 1, associated piers and connected campus buildings, in order to meet sustainability/emissions reductions targets. It does not include subsequent construction works, which are expected to follow in the next regulatory period. The IFS has a number of outstanding questions in relation to the cost of the feasibility study, which will be addressed before the Final decision.

16.198 Similar to T2, we recognise the requirement to reduce carbon emissions and the requirement for T1 to contribute to this. Given the age and complexity of T1, having been built in various phases, this will be a very complex project. We thus consider the approach whereby a detailed feasibility study is carried out in the first instance to be reasonable.

16.199 We expect that the ultimate improvements to the energy efficiency of T1 will also provide significant Opex benefits, although these will not materialise by 2026.

16.200 We therefore propose to allow for this project and include it in the StageGate process.

### ***Cancelled and Deferred Projects***

16.201 Three projects included in the 2019 programme have been cancelled in the revised programme, while nine have been deferred. The table at the end of this section includes a list of these projects for completeness.

CIP.20	Project	Draft Allowance (millions, real prices)	Asset Life	Treatment
<b>Asset Care- Civil, Structural, Fleet</b>				
01.001	Southern Runway 10/28 Delethalisation	2.4	20 years	Flexible
01.002	Apron Rehabilitation	45.6	20 years	StageGate
01.003	Airfield Taxiway Rehabilitation	17.8	20 years	StageGate
01.004	Apron Road Rehabilitation	5.1	20 years	Deliverable
01.006	Airfield Southern Perimeter Road Upgrade	4.4	15 years	Flexible
01.008	Runway Approach Lighting Mast Improvement	12.6	20 years	Deliverable
01.009	Aerodrome Ground Lighting (AGL) Improvement	5	15 years	Deliverable
01.010	Airfield Lighting Control Management System Improvement	5	10 years	Deliverable
01.012 (Completed)	AGL Substation T Development	3.6	30 years	Deliverable
01.015	High Mast Lighting Improvement	0.9	15 years	Flexible

01.016	Airfield Maintenance Base Improvement	5	20 years	Flexible
01.018	Campus Buildings Critical Maintenance	1.6	15 years	Flexible
01.020	Terminal 1 Façade, Roof & Spirals	28.7	20 years	Flexible
01.022	Terminal 1 Storm Water Drainage System	1.3	15 years	Flexible
01.023	Piers & Terminals Critical Maintenance	1.7	15 years	Flexible
01.024	Skybridge Rehabilitation	1.3	20 years	Deliverable
01.034	Campus Roads Critical Maintenance	6.4	15 years	Deliverable
01.039	Airport Roads Critical Maintenance	5.6	15 years	Deliverable
01.046	Staff Car Parks Critical Maintenance	1.1	15 years	Flexible
01.049	Public Carpark Critical Maintenance	2.7	15 years	Flexible
01.056 (Completed)	Campus Facilities & Landside Snow Base Upgrade	2.4	20 years	Flexible
01.065	Airport Heavy Fleet & Equipment Replacement	12.2	7 years	Flexible

01.069	Airport Light Vehicle Fleet Replacements & Augmentation	2.9	5 years	Flexible
01.071	Electric Charger Network Facilities	1.8	10 years	Flexible
01.074	Advance Visual Docking Guidance System	6	10 years	Deliverable
01.087	AGL Fibre Optic Communication Network Improvement	2.3	20 years	Deliverable
01.099	RWY 16/34 Lighting for Low Visibility Procedures (LVP)	6.4	10 years	Deliverable
07.013	Airfield Redesignation	1.6	15 years	Flexible
07.032	ULD Storage	5.7	15 years	Flexible
<b>Mechanical and Electrical</b>				
02.001	Medium Voltage (MV) Electrical Network	6.8	20 Years	Deliverable
02.002	Second Medium Voltage (MV) Connection Point	1.2	5 Years	StageGate
02.004	Passenger Boarding Bridges (Maintenance & Pier 3 Enhancement) & FEGP	17.5	15 years	Deliverable

02.005	Lift Upgrade Programme-Terminal & Multi-Storey	6.7	20 Years	Deliverable
02.006	Airport Water & Foul Sewer Upgrade	5.3	25 years	Deliverable
02.007	Life Safety Systems (LSS) Upgrade	11.2	10 years	Deliverable
02.008	Terminal Buildings- HVAC Upgrade	19.8	20 years	Deliverable
02.009	Campus Buildings: Mechanical, Electrical & LSS Upgrade	10.2	15 years	Deliverable
02.010	Pier 3 Life Extension Works- Mechanical, Electrical & Foul Drainage	15.4	15 years	Deliverable
02.013	Small Energy Projects	5.7	15 years	Deliverable
07.030	Large Energy Project - Photovoltaic Solar Farm	9.7	15 years	Deliverable
<b>Capacity</b>				
03.004 (Completed)	Gate Post 9 Expansion (West Lands)	7.5	20 years	Completed (Flexible)
03.012	Terminal 1 Central Search-Relocation to Mezzanine Level	43.9	15 years	StageGate

03.013	Terminal 1 Departure Lounge (IDL) Reorientation & Rehabilitation	33.2	15 years	StageGate
03.015	Terminal 1 Baggage Reclaim Upgrade & Alterations	22	15 years	Flexible
03.017	Terminal 1 Shuttle, bus lounges & injection points	3.7	15 years	Flexible
03.018	Terminal 1- Immigration Hall	1.9	15 years	Flexible
03.020	Terminal 2 Check-In Area Optimisation	14.7	15 years	Flexible
03.021	Terminal 2 Central Search Area Expansion	5.2	15 years	Flexible
03.024	Terminal 2 Immigration Hall Reorientation	2.2	15 years	Flexible
03.028	Terminal 2 Early bag store & transfer lines	31.9	10 years	StageGate
03.029	New Pier 5 (T2 and CBP Enabled)	292.3	28 years	StageGate
03.030	Expansion of US Pre-Clearance Facilities	75.4	25 years	StageGate
03.031	South Apron Expansion (Remote Stands, Taxiway and Apron)	178.6	34 years	StageGate



03.033A	Enablement of Pier 3 for Precleared US bound passengers	8.4	15 years	Flexible
03.034	Pier 3 Immigration (Upgrade & Expansion)	9.9	6 years	Flexible
03.036	North Apron Development- Pier 1 Extension (Module 1) & Apron 5H PBZ	206.8	32 years	StageGate
03.051B	West Apron Vehicle Underpass- Pier 3 Option	228.8	50 years	StageGate
03.072	Transfer Immigration Booths – Pier 4 and T2	0.7	10 years	Flexible
<b>NEW PROJECT</b> 03.074	Taxiway R widening	6.2	30 years (Increased from 20)	StageGate
<b>NEW PROJECT</b> 03.075	Fuel Hydrant Network Works	29.3	20 years	StageGate
<b>NEW PROJECT</b> 03.076	De-Icing Consolidation	1.3	7 years	Flexible
03.077	South Apron Airside Support Centre	10.8	20 years	StageGate
03.078	Pier 4 De-Flex	3.9	30 years* (Increased from 15 years)	Flexible
<b>NEW PROJECT</b> 03.079	Code E Engine Test Facility	15.5	20 years	StageGate
<b>NEW PROJECT</b> 03.080	10L/28R Taxiway Exit AGL	4.6	15 years	Flexible

<b>NEW PROJECT</b> 03.081	Apron 5H & North Apron Taxiway Rehabilitation	93.1	32 years	StageGate
<b>Commercial Revenues</b>				
04.001	Car Parking Management System (Maintenance & upgrade)	3.7	10 years	Flexible
04.002	Car Hire Consolidation Centre	30.4	20 years	Deliverable
04.003	New Food & Beverage Fit-out (T1X)	2.5	20 years	Flexible
04.004	Digital Advertising Infrastructure	7.9	5 years	Flexible
04.005	Long Term Car Parking-Eastland's	11.7	20 years	Flexible
04.007	Terminal 2 Multi-Storey Car Park	19	25 years	Flexible
04.009	Staff Car Park	6.9	20 years	Flexible
04.016	Platinum Services Upgrade Works	7.2	10 years	Flexible
04.017	Airline Lounges-Expansion, Upgrade & New	16.2	12 years	Flexible
04.018	Fast Track Improvements	6.6	7 years	Flexible
04.021	West Apron-Accommodation & Welfare Facilities	3.1	25 years	Flexible

04.023	Food & Beverage Provision & Fit-out- Post CBP	4.1	20 years	Flexible
04.025	Commercial Property Refurbishment	6.5	7 years	Flexible
04.030 (Completed)	New Kitchen in Terminal 2	2.3	20 years	Flexible
<b>NEW PROJECT</b> 04.031	Fuel Farm Welfare	2.4	20 years	Flexible
04.032	Drop off/ Pickup			Disallowed
<b>NEW PROJECT</b> 04.034	OCTB Refurb	8.5	20 years	Flexible
07.010	Office Consolidation & Refurbishment (primarily Level 4 & 5, Terminal 1)	18.3	25 years	Flexible
08.001	Retail Refurbishments, Upgrades and New Developments	10.9	5 years	Flexible
08.002	Retail Marketing & Media Installation	1.8	5 years	Flexible
<b>IT</b>				
05.001	Airfield Optimization	6.3	5 years	Flexible
05.002	Digital Passenger Experience	2	5 years	Flexible
05.003	Integrations and Data	5.5	5 years	Flexible

05.004	Baggage Systems	1.5	5 years	Flexible
05.005	Business Efficiency	6.9	5 years	Flexible
05.006	Commercial Systems	2.6	5 years	Flexible
05.007	Reliability, Safety, Security & Compliance	9.2	5 years	Flexible
05.008	Operational Devices (Support & Maintenance)	1.9	5 years	Flexible
05.009	Network Components-Lifecycle & Growth	7.4	5 years	Flexible
05.010	Passenger Processing (excl. Security Screening)	12.3	5 years	Flexible
05.011	Security Technology Innovation (Biometrics & FOD Detection)	5.6	5 years	Flexible
05.012	Servers and Storage-Lifecycle & Growth	6.2	5 years	Flexible
05.014	User Devices (Desktops, Mobile, Telephone, Radio)	4.1	5 years	Flexible
05.015	New Data Centre Hosting Location	4.5	15 years	Flexible
05.016	Microsoft Enterprise	6.3	3 years	Flexible
05.020	Innovation Fund	4.4	5 years	Flexible

Security				
06.001	Cabin Baggage X-Ray Replacement & EDS Upgrade	18.8	7 years	Flexible
06.007	Full Body Scanners	2.2	7 years	Flexible
06.009	ATRS- Additional Lane in Terminal 1	0.6	7 years	Flexible
06.014	Screening and Logistics Centre	14.4	15 years	Deliverable
06.015	Intrusion Detection Systems for Dublin Airport Boundaries	3.9	7 years	Flexible
06.016	Surface Road Blockers & Temporary Mobile Barriers	1.2	7 years	Flexible
06.022	Redevelopment of Training Facility (ASTO)	1.4	15 years	Flexible
06.025 (Completed)	Detection: Explosive Detection Dogs (EDD) and Mobile X Ray Unit	0.2	6 years	Completed
06.030	VCP Automation to Enable Remote Screening	0.8	7 years	Flexible
06.031	Autopass - T1 Replacement & T2 Install	1.9	7 years	Flexible
06.036	TSA- X-Ray & FBSS Replacement	0.4	7 years	Flexible

06.041	Security Screening Equipment- End of Life	5.7	7 years	Flexible
06.042	ATRS- Central Search Areas (T1 and T2)	12.6	7 years	Flexible
06.044	Replacement of T1 Controllers for Access Control System	0.5	7 years	Flexible
07.031/033 (complete)	HBS3- T1 and T2		15 years	StageGate
<b>NEW PROJECT</b> 06.045	Security Scanners	26.5	8 years	Flexible
<b>NEW PROJECT</b> 06.046	Terminal Kerb Security Mitigation	11.2	20 years	StageGate
<b>SUSTAINABILITY</b>				
03.052	Surface Water Environmental Compliance	91.4	20 years	StageGate
<b>NEW PROJECT</b> 09.001	Airport Charging	72.1	15 years	StageGate
<b>NEW PROJECT</b> 09.002	Alternate Fuels	1.4	20 years	StageGate
<b>NEW PROJECT</b> 09.003	Anaerobic Digestion	8.9	15 years	StageGate
<b>NEW PROJECT</b> 09.004	Sustainable Fleet	16.7	5 years	Flexible
<b>NEW PROJECT</b> 09.005	Fixed Electrical Ground Power Phase 3	11.4	15 years	StageGate

<b>NEW PROJECT</b> 09.006	Photovoltaic Solar Farm Phase 2	36.6	25 years* (CAR changed)	StageGate
<b>NEW PROJECT</b> 09.007	Mobility Improvements	12.8	5 years	Flexible
<b>NEW PROJECT</b> 09.008	Terminal 2 Sustainable Upgrade	99.4	15 years	StageGate
<b>NEW PROJECT</b> 09.009	Terminal 1 and Campus Sustainability Feasibility	5.8	15 years	StageGate
<b>Other</b>				
07.001	Programme Management	4.8	5 years	Flexible
07.002	Minor Projects	15.2	7 years	Flexible
07.014	Terminal Operations Improvement Projects	4.7	5 years	Flexible
<b>NEW PROJECT</b> 07.035	MV Resilience Substation	51.9	15 years	StageGate
<b>NEW PROJECT</b> 07.036	Upgrade to Hold Baggage Sortation Equipment	40.3	15 years	StageGate
<b>Deferred</b>				
03.006	T1 Kerbs			
03.011A	T1 Check-In (Partial Shoreline)			
03.016	T1 Rapid Exit Arrivals			
03.043A	T1 New Airbridges			
03.049	De-Icing Pad at Runway 10R			
03.054	Apron 5M			

03.057	Airside GSE Charging Facilities
03.071	Piers 1 and 3 Hydrant Enablement
04.006	T1 Multistorey Car Park Block B
<b>Cancelled</b>	
03.043.1	Terminal 1 Pier New Airbridges
03.057	Airside GSE Charging Facilities
03.071	Hydrant Enablement – Pier 2 and 3