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WACC for the 2026 determination

A report prepared for Dublin Airport

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Executive Summary

Introduction

In this report we set out an 'early view' on the weighted average cost of capital (WACC) for the 2026 determination. We have provided this view to accompany the Dublin Airport business plan submission. We have assumed that the price control covers the 2027 to 2031 period for the purposes of preparing this report – this is aligned with the IAA's high level conclusions document published in December.

Below we summarise the key context to the price control, our findings on cost of equity parameters, cost of debt parameters, gearing, as well as aiming-up and inflation adjustments. We conclude with our overall assessment of the real pre-tax WACC range.

Key context

Since the last charging decision taken by the IAA for Dublin Airport, there has been a number of key market developments that are important for the WACC. We highlight three major developments below.

- Firstly, monetary policy has tightened considerably across the Euro area and in other major global economies. Interest rates have climbed substantially since past decisions were taken, and are not expected to return to the levels experienced before 2022. This climb in interest rates is evident from both central bank policy rates, and also the interest rates payable on long-term bonds. These higher rates impact the cost of debt directly, both the cost of new debt in the market, and the existing debt-book (where financing was recent). They also impact the cost of equity, as the return available on risk-free assets has increased, feeding through into required returns on riskier equity investments.
- Secondly, more time has passed since the most intensive travel restrictions associated with the COVID-19 pandemic were in place. This allows us to draw upon data from a time-period where activity in the aviation sector has recovered. In terms of WACC estimation, this is relevant for both the cost of debt financing that Dublin Airport can achieve in the market, and for beta estimation. In terms of airport betas, there was significant volatility in these values in 2020 and 2021. At the time it was challenging to place these figures into context, but we now have much more information on trends before, during and after the pandemic.
- Lastly, infrastructure investors currently have many competing opportunities for capital. Investment for Dublin Airport is arriving at a time when investors have many options for where capital can be deployed. For example, countries all over the world are seeking rapid progress towards a decarbonised future, with high demand for investment in energy networks and energy generation. At the same time, there has been rapid growth in the capital required for data centres globally – with multi-billion debt and equity market

investments being made to provide computing power for AI. As a result, airports face intense competition globally for capital. It is important that the WACC is estimated with a clear consideration of the need to have ongoing access to capital markets over the next five years. Particularly as Dublin Airport will need to access capital markets regularly over 2027 to 2031 to finance the significant RAB growth contained in the business plan.

Our analysis takes into account these developments that have occurred since the last IAA assessment of WACC was undertaken. Overall, we find that **the WACC has increased**. This is primarily driven by:

- Higher interest rates **increasing the cost of debt.** This is due to debt being raised at higher rates over the past few years and higher benchmark rates for new debt. Given the large amount of RAB growth for the upcoming period, the proportion of new debt is high which increases the overall cost of debt due to high current intertest rates.
- Our focus on long-run historical averages when estimating the TMR **increasing the cost of equity**. The low-end of the TMR range used in the previous decision was based on unsuitable DGM analysis, and the figures produced by that analysis are no longer suitable given current market conditions.
- The equity beta estimate increasing relative to the previous decision. This is informed by a full appraisal of all evidence in a more robust manner than previous exercises (which arbitrarily removed raw data from the sample and included illiquid comparators). This means that, although some short-window estimates of beta have fallen since the previous decision, our use of all available data for appropriate comparators leads to a higher beta estimate, **increasing the cost of equity**.
- Use of a higher tax-rate assumption, informed by recent daa accounting data, **increasing the pre-tax cost of equity**.

We summarise our approach to each parameter below.

Cost of equity

Risk-free rate

Government bond yields with the highest credit rating provide a proxy for the risk-free rate. We draw upon German government bonds a measure of the nominal risk-free rate, and then apply a suitable deflator to convert these values into a real risk-free rate. We focus on long-tenor bonds as these align with the long asset lives and investment horizons in infrastructure sectors such as airports. We also consider evidence from Irish government bonds as these provide some weighting on Irish country-specific risk – a factor that is relevant for an investor considering an investment in Dublin Airport. Our real risk-free rate range is 1.31% to 1.83%.

Total market returns

We focus on total market returns rather than estimating the equity risk premium directly – there is ongoing regulatory support this approach, and its continuation for the 2026 determination would support regulatory stability. We consider the IAA's past approach of considering both Irish and European long-term historical return evidence is appropriate, but recommend a specific data series for European returns is adopted. Specifically, we focus on Euro area countries. Our real TMR range is 6.50% to 6.90%.

Beta

The aviation sector was acutely impacted by the COVID-19 pandemic. During periods where intensive travel restrictions were in place, betas for airports rose significantly compared to pre-2020 values. Passenger numbers have subsequently recovered, growing strongly over the past few years, and over that timeframe short-window betas have reduced from the high-levels observed during the pandemic. When considering what is representative for a forward-looking five-year period, there is a degree of judgement over which timeframes to draw evidence from. We consider evidence from a range of dates, some excluding the pandemic, and some including the pandemic to inform the beta range. We also consider that pre-pandemic beta data is potentially less relevant for the 2026 determination as it would not reflect the geo-political risks, risks to cross-border trade and trends in air-travel that have emerged following the pandemic. Our asset beta range is 0.61 to 0.67.

Cost of debt

We estimate the cost of debt for embedded and new debt separately in line with the IAA's past approach:

- For the cost of embedded debt, we base our estimate on daa's actual debt costs. We estimate the average cost of this debt over the upcoming regulatory period accounting for the expected maturity and amortisation profile of the debt. Our estimate is -0.47%.

- For the cost of new debt we use A and BBB rated 10Y+ iBoxx indices. These indices provide a benchmark of longer-term debt – which is consistent with daa's existing debt book – and reflect a notional credit rating of between A and BBB which is in line with previous decisions and other regulated companies. Our range is 2.64% to 2.90%.

- We estimate the average proportion of new debt, 52%, using daa's expected issuance over the upcoming period and the maturity and amortisation profile of the existing debt.

To adequately fund debt costs it is also important that there is sufficient allowances for all aspects of additional borrowing costs. Previously, the IAA has allowed an uplift to the cost of debt for issuance costs, but there are other costs such as the cost of maintaining ongoing liquidity and the cost of carrying excess cash while the business deploys debt proceeds. We estimate all relevant categories of additional borrowing cost, resulting in a 30bps uplift.

Gearing

In line with previous gearing decisions for Dublin Airport, we apply a gearing assumption of 50% when estimating the WACC. We note that the WACC is not sensitive to small changes in the gearing level applied.

WACC uplifts

There are also two reasons to consider an uplift to the WACC that are relevant based on regulatory precedent for Dublin Airport, and regulatory precedent in Ireland more widely. These are:

- **Aiming-up** – there are multiple reasons why some aiming-up on the WACC is appropriate for the next control period. We concur with the IAA that the risks of underestimating the WACC are greater than the risks of overestimating; and agree that relevant factors to consider are the economic risks associated with underinvestment, measurements error of WACC components, and the scale of the CAPEX programme within the charging period. Aiming-up has been applied in past Dublin Airport charging decisions and is commonplace in other regulatory allowed rate of return settings too.

- **An inflation adjustment** – it is important that the inflation figures used in the estimation of the real WACC are consistent with the inflation figures used to inflate the asset base. Otherwise mismatches can arise. An adjustment to the WACC can help achieve consistency between the inflation figures used in estimating the WACC and the Irish CPI index used to inflate the asset base.

Combined, we consider that these two factors support a continued uplift to the WACC of +0.50%, in line with regulatory precedent for Dublin Airport.

Early view of the 2026 determination WACC

Combining our views on the individual parameters, our early view is that a **real pre-tax WACC is in the range 5.78% to 6.44%.** This is set out in the table below and compares to 4.35% for the 2022 decision. A key contributor to the change since the 2022 decision is the cost of debt increasing due to interest rates materially rising and a significant amount of new debt needed to finance the Capex for the upcoming period. The real cost of debt was previously negative (-0.45%), but is now in the range 1.46% to 1.59%. This change alone, increases the WACC by 96bps to 102bps from the 2022 decision.

Table 1 WACC estimate

Component	2022 decision	Frontier Low	Frontier High
Notional Gearing	50%	50%	50%
Risk-free rate	-0.45%	1.31%	1.83%
Total Market Return	6.25%	6.50%	6.90%
Equity Risk Premium	6.71%	5.19%	5.07%
Asset beta	0.60	0.61	0.67
Equity beta	1.13	1.22	1.34
Cost of equity	**7.13%**	**7.64%**	**8.62%**
Cost of embedded debt	-1.16%	-0.47%	-0.47%
Cost of new debt	1.29%	2.64%	2.90%
Issuance and liquidity costs	0.05%	0.30%	0.30%
Proportion of new debt	27%	52%	52%
Cost of debt	**-0.45%**	**1.46%**	**1.59%**
Vanilla WACC	**3.34%**	**4.38%**	**4.92%**
Corporation tax	12.50%	16.10%	16.10%
Pre-tax cost of equity	**8.15%**	**9.11%**	**10.28%**
Pre-tax WACC (before uplifts)	3.85%	5.28%	5.94%
WACC uplifts	**0.50%**	**0.50%**	**0.50%**
Pre-tax WACC	**4.35%**	**5.78%**	**6.44%**

Dublin Airport has asked us to provide a WACC point estimate in this report. Having carefully considered the evidence used to create the WACC range in the table above, our view is that the mid-point of the range could provide a suitable point estimate. This is a **real pre-tax WACC of 6.11%**. We consider the mid-point appropriate as aiming-up (included as part of WACC uplifts) has already factored in some of the reasons often cited for selecting a figure from the top-half of the range.

1 Introduction

Dublin Airport has asked Frontier Economics to estimate the cost of capital for the next regulatory period. We assume that this covers the 2027 to 2031 period – this is aligned with the IAA's conclusions on high level issues.

This report provides a view on the weighted average cost of capital (WACC) for Dublin Airport's business plan submission to the IAA.

1.1 Overview of WACC methodology

The steps we use to estimate the WACC are broadly consistent with the 2019 and 2022 decisions. To estimate the cost of equity (k_e) we apply the Capital Asset Pricing Model (CAPM). Within that model we focus on estimating the total equity market return (TMR) and calculate the equity risk premium as the difference between the TMR and the risk free rate. This is shown in the equation below: [1]

$$k_e = r_f + \beta_e(TMR - r_f)$$

To estimate the cost of debt (k_d), we combine estimates for the cost of embedded debt - debt already issued by daa prior to the start of the regulatory period, and the cost of new debt - debt to be issued by daa within the upcoming period.[2] This is shown in the equation below:[3]

$$k_d = k_{new}.\omega_n + k_{embedded}.(1 - \omega_n)$$

To determine the weighted average cost of capital, we weight these estimates of the cost of equity and the cost of debt using a notional gearing assumption for daa. This is shown in the equation below: [4]

$$WACC = k_e.(1 - g) + k_d.g$$

We then consider the topics of tax, aiming-up and inflation adjustments to derive a pre-tax WACC that is appropriate for price-cap purposes.

In the remainder of this report, for each parameter, we discuss our approach, the evidence we considered, and provide an initial view for Dublin Airport's WACC.

1 k_e is the cost of equity, r_f is the risk-free rate, β_e is the equity beta, and TMR is total market return.

2 Within these estimates for the cost of embedded and new debt we also consider additional borrowing costs.

3 k_d is the cost of debt, k_{new} is the cost of new debt, ω_n is the weight on new debt, and $k_{embedded}$ is the cost of embedded debt.

4 g is the notional gearing assumption that represents net debt as a proportion of RAB.

1.2 Structure of this report

The structure of this report is as follows:

- In Section 2 we set out market context that is relevant to the next control period;
- In Section 3 we set out our inflation assumptions;
- In Section 4 we estimate the cost of debt, setting out our views on the cost of embedded debt, cost of new debt, the weighting between the two, and additional borrowing costs;
- In Section 5 we estimate the risk-free rate;
- In Section 6 we estimate total market returns;
- In Section 7 we estimate the asset beta for Dublin Airport;
- In Section 8 we calculate the cost of equity using the CAPM inputs;
- In Section 9 we set out a gearing assumption for Dublin Airport; and
- In Section 10 we conclude with our WACC range, setting out the uplifts we have applied to the final recommended range and the point estimate we recommend Dublin Airport uses for business planning purposes.
- We provide additional details of calculations in Annexes.

2 Market context

In this section of the report we set out the market context that we consider relevant for estimating the WACC for the 2026 determination. This is split into two parts:

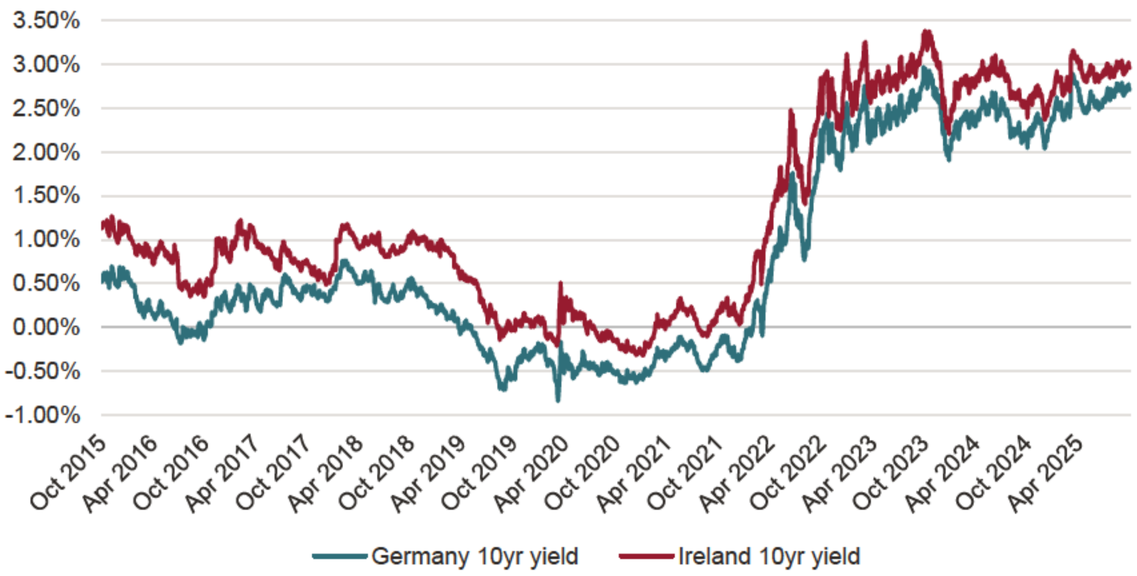
- Financial market and macroeconomic context – capturing the significant changes that have occurred since the last time the IAA considered WACC.
- Sector-specific market context – capturing trends in the aviation sector and implications for the WACC.

Financial markets and the macroeconomy

The interest rate environment has implications for the both cost of debt and the cost of equity. It's therefore important to set out interest rate trends in recent years. Prior to 2022, the Euro area – along with other major currency areas – experienced a prolonged period of very low interest rates. For example, nominal interest rates on some securities such as government bonds were negative, with real interest rates typically being even lower than these.

Starting in 2022, monetary policy has significantly shifted in the Euro area. This is shown in the chart below that captures changes in long-term government borrowing costs (10-year bond yields for Germany and Ireland). In contrast to the negative values observed through 2019, 2020 and 2021, yields climbed steeply and have remained at higher levels (around 3 percentage points on Irish 10-year government bonds recently).

Figure 1 Nominal government bond yields



Source: LSEG

Note: 10-year benchmark yields to 30 September 2025

We also note that market evidence from forward rates also suggests that interest rates are expected to remain high for the foreseeable future.

This means that the 2026 determination is being undertaken with market conditions that are significantly different to those in 2019 or 2022 (interim determination). As global market conditions have changed, it is important that this feeds through into the WACC to help ensure the airport has ongoing access to capital market throughout the regulatory period. A careful appraisal of both methodology and inputs is required in order to ensure that WACC estimation is appropriate for these particular set of market conditions – we therefore carefully consider both in each of the following sections of this report.

The change in market conditions has implications for the cost of debt. Both in terms of the cost of borrowing faced by Dublin Airport when taking out outstanding previous borrowings (embedded debt) and the cost it is likely to face over the next regulation period.

It also has implications for the cost of equity. This is because the CAPM has the risk-free rate – based on government bond yields – as an input. And, more broadly, because interest rates also influence wider infrastructure financing conditions through the level of returns that investors expect to achieve on a wide range of assets (including airports).

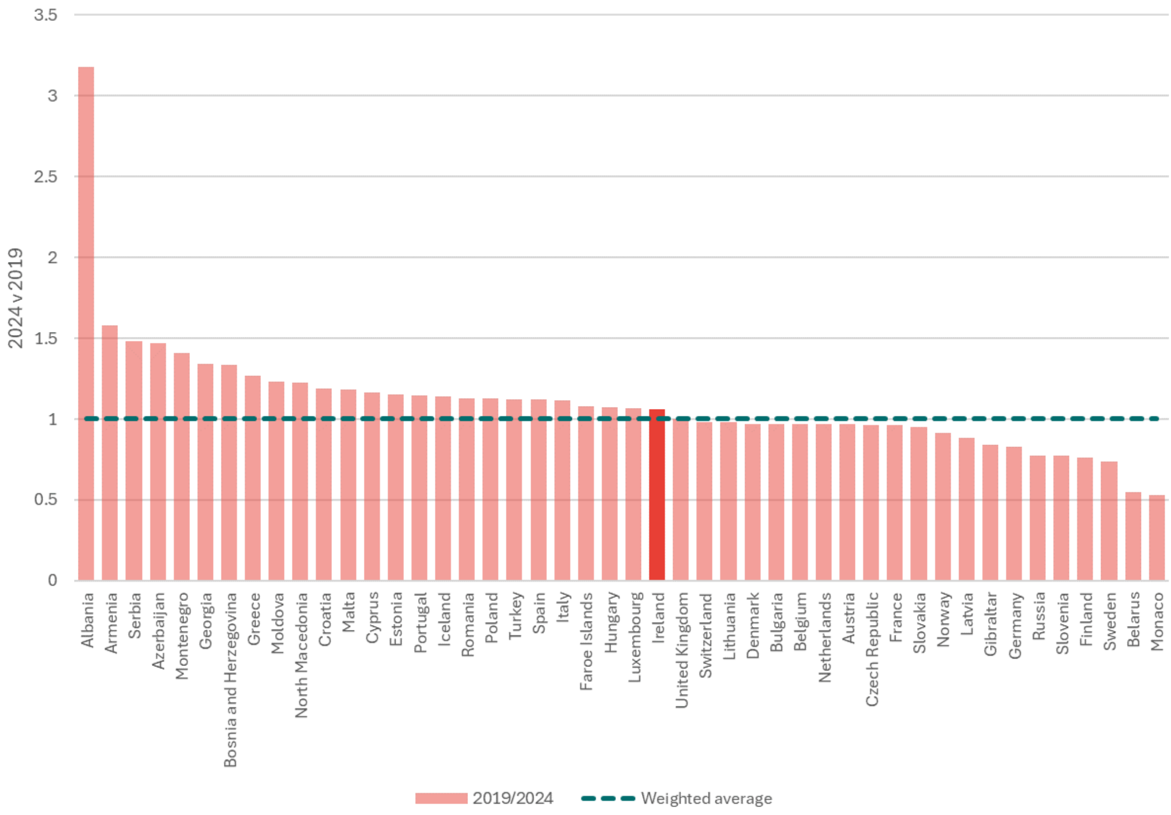
With regards to wider infrastructure financing conditions, we note that the 2026 determination is being undertaken at a time when investors currently have many competing opportunities for capital. Investment for Dublin Airport is arriving at a time when investors have many options for where capital can be deployed. For example, countries all over the world are seeking rapid progress towards a decarbonised future, with high demand for investment in energy networks and energy generation. At the same time, there has been rapid growth in the capital required for data centres globally – with multi-billion debt and equity market investments being made to provide computing power for AI.[5] As a result, airports face intense competition globally for capital. It is important that the WACC is estimated with a clear consideration of the need to have ongoing access to capital markets over the next five years.

Sector-specific market context

Following the pandemic, passenger volumes have recovered in Europe in recent years. This is also the case at Dublin Airport where total passengers numbers have remained strong in 2025. As shown in the chart below, comparing the number of seats in 2024 compared to 2019 shows that volumes were similar to 2019 levels in most countries. Ireland (highlighted) is towards the centre of the distribution.

[5] Moody's forecasts that global data centre related investments of at least $3 trillion over the next five years (2026 Data Centers Outlook report). The FT also recently cited that Google, Amazon, Microsoft and Meta will spend more than $400bn on data centres in 2026, on top of more than $350bn in 2025. Multi-billion dollar bond sales have also recently been undertaken to finance AI investment.

Figure 2 Seats in 2024 vs 2019 by country



Source: *OAG*
Note: *Ratio of 2024 seats to 2019*

Based on this observation, it may be tempting to assume that things are 'back to normal' for the aviation sector, but we see a number of risks with an assumption as basic as that. These include:

- While some measures of volumes (or cash flows) in the aviation industry may have improved significantly since the pandemic, investors may perceive risks around those volumes (or cash flows) differently to pre-pandemic. In short, there is a possibility that investors' expectations regarding the sector have been 're-baselined' by the pandemic experience given the scale of the shock. A shock of the size and duration of COVID-19 may not have featured materially in past risk assessments, but could now have much more weight attached when appraising investments.

- There have been a number of other significant non-pandemic developments that have occurred since 2019 that impact upon the risk profile of the aviation sector. These include the war in Ukraine, changing perceptions of geo-political risk, and changing risks to global trade through the introduction of new tariff regimes. Trends in business versus leisure travel has also been impacted by the pandemic.

We therefore consider it important to review market trends carefully to understand how investor perceptions may have changed, and how best to estimate parameters for a forward-looking five-year determination period. We also acknowledge that there is a degree of judgement involved in assessing how some of these issues faced by the sector impact upon the WACC.

3 Inflation

Inflation inputs are required to estimate a WACC which is expressed in real terms. Where underlying inputs are in nominal terms, these need to be deflated.

3.1 Regulatory precedent

In 2019 and 2022, the IAA used both German breakeven inflation and the ECB Survey of Professional Forecasters (SPF) to estimate inflation for deflating nominal parameters. This is similar to the approach taken by other regulators such as CRU, who use German breakeven inflation in its determinations.

3.2 Estimation approach

We follow the previous methodology of using German breakeven inflation and ECB Survey of Professional Forecasters (SPF) to estimate inflation for deflating nominal parameters. German breakeven inflation provides a market based forecast measure of Euro area inflation while the ECB survey data provides an analyst forecast.

Since both the cost of debt and cost of equity use longer term time horizons, we use the same inflation assumption to deflate parameters in both. To reflect the longer-term time horizon, we use 10-year German breakeven estimates and the longest term view available from the ECB survey.

While national inflation indices are typically the best reflection of inflation expectations in a given country, there is a lack of Irish *market* measures of inflation which can directly be used in place of the German breakeven rate.

Irish Central Bank estimates (the ICB HIPC 1-year ahead forecasts) are not appropriate because they do not cover the appropriate time horizon. In addition, the Irish government inflation-linked bonds do not provide a true market measure of inflation expectations as these relate to bonds which have only been issued recently (from 2017 onwards) and were offered through private placement – this restricts who can purchase the bonds, affecting their liquidity and making them less representative of broader market conditions.

3.3 Evidence

We present evidence form 10-year German breakeven inflation and ECB survey forecasts in the table below.

Table 2 Inflation forecasts

	German breakeven inflation	ECB survey long-term forecast	Average
Inflation (%)	1.75%	2.00%	1.87%

Source: LSEG, ECB

Note: German breakeven based on a 6 month average to 30 September 2025

For German breakeven inflation, we take a 6 month average up to our data cut-off at the end of September 2025. This provides an estimate of 1.75%.

For the ECB survey we use the latest estimates available at Q3 2025. This provided a longer-term estimate of inflation of 2.00%.

We take an average of the these two sources as our inflation assumption, giving an estimate of 1.87%. We apply this to both ends of our range across all parameters of the cost of capital where we use an inflation assumption.

4 Cost of debt

In line with previous decisions by the IAA, we have estimated the cost of debt by separately estimating the cost of embedded debt and cost of new debt with an assumption on the average proportion of new debt in the period.

4.1 Cost of embedded debt

Regulatory precedent

In 2019 and 2022, the cost of embedded debt was estimated based on daa's actual debt book. To estimate the cost of embedded debt, two approaches were used:

- The weighted average of real interest rates across embedded debt as of the time of the time of the decision.
- The expected average real interest rates of the embedded debt over the regulatory period. This is likely to deviate from the current rate on embedded debt due to debt expiring and amortising debt over the period.

Estimation approach

We consider that it is important that the approach for estimating the cost of embedded debt reflects the embedded debt cost across the entire upcoming regulatory period. This means that less weight should be placed on debt that either matures or amortises over the course of the regulatory period. If the cost of embedded debt is estimated on the basis of a snapshot at the time of the decision, this risks providing an insufficient allowance relative to the actual costs the business will face over the regulatory period.

To estimate the cost of embedded debt, we therefore use the second of the approaches used previously; and estimate the weighted average cost of embedded debt over the regulatory period. daa's debt book comprises of a mix of bonds and loans with clear amortisation schedules. Therefore, the cost of embedded debt can be projected over the regulatory period.

Evidence

In Table 3 below, we show the weighted average cost of embedded debt for each year of the regulatory period. We deflate the nominal cost of embedded debt using an inflation assumption of 1.87% (discussed in Section 3).

Table 3 Weigthed average cost of debt, 2027-2031

	2027	2028	2029	2030	2031	Average
Weighted average (nominal):	1.39%	1.39%	1.38%	1.38%	1.40%	**1.39%**
Weighted average (real):	-0.47%	-0.47%	-0.48%	-0.48%	-0.46%	**-0.47%**

Source: daa, Frontier Economics calculations

Note: Weighed average is estimated using the rate and average amount outstanding over the calendar year for each instrument. We have not included in our assessment of embedded debt a EUR 288 million loan signed in July 2025 as this has not yet been drawn and the rate has not yet been confirmed.

For our cost of embedded debt estimate (**before** additional borrowing costs), we take the average over the upcoming regulatory period of 1.39% nominal over the 2027-2031 period, deflated by 1.87% gives a real figure of -0.47%.

4.2 Cost of new debt

To estimate the cost of new debt, there are several methodological choices:

- Which benchmark indices should be used;
- What averaging period of the benchmark indices should be used; and
- Whether forward rates be applied to the average of the benchmark index to account for future market expectations.

Regulatory precedent

In 2019, the IAA used iBoxx BBB rated Non-Financials 7-10Y and 10+Y indices to estimate the cost of new debt. However, in 2022, the IAA decided to place weight on the 10+Y index only, since the longer investment horizon was more reflective of daa's existing debt. It also applied a one-third weighting to the iBoxx A rated Non-Financials index as a means of estimating the cost of new debt at a notional BBB+ credit rating instead of the BBB rating used in 2019.

For the averaging period of the benchmark indices, in 2022 the IAA used a 6-month average whereas in 2019 it placed weight on 1-, 2- and 5-year averages to construct a range. This change reflected the significant increase in interest rates observed during 2022.

The IAA also used forward rates to capture market expectations around future yields over the regulatory period in both the 2019 and 2022 decisions. Its approach uses 10-year forward rates on AAA and all Euro area government bonds respectively to estimate a forward rate adjustment to the benchmark indices.

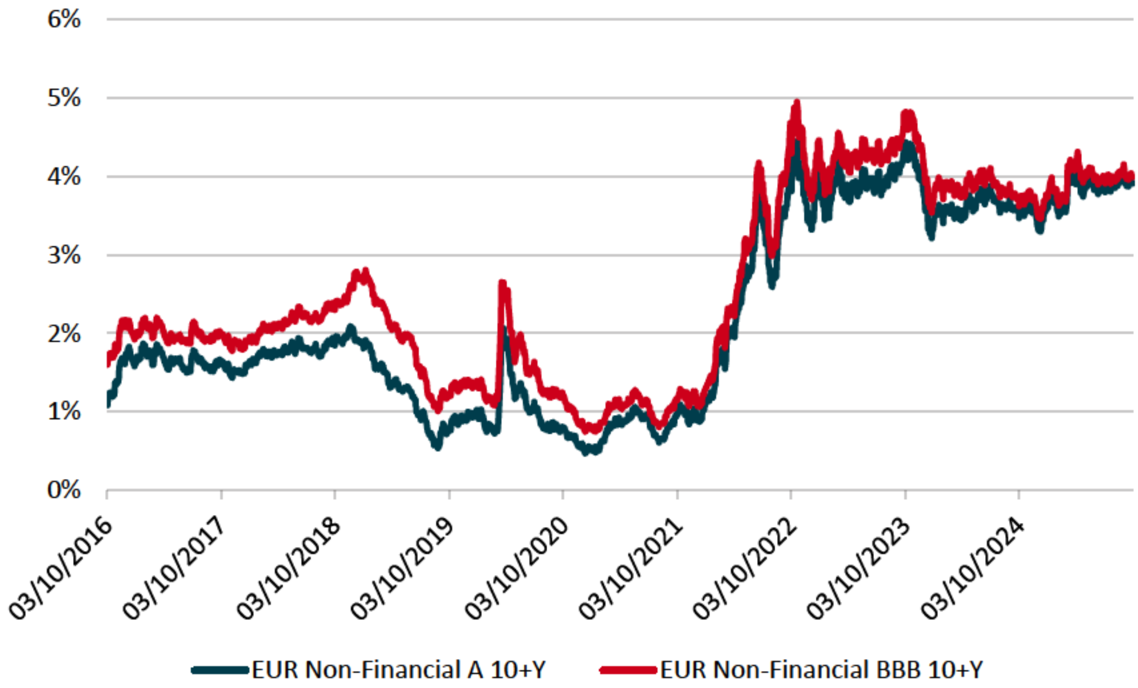
Estimation approach

We consider that the 2022 approach to estimating the cost of new debt remains broadly appropriate since using external benchmarks such as the iBoxx indices provides incentives to issue new debt efficiently.

Our initial view is that short-term averages of the iBoxx yields provide a suitable figure for the cost of new debt. This balances the need for an up to date observation, in order to reflect relevant market conditions, while avoiding the need to rely on a spot figure from any given day.

As shown in Figure 3 below, the yield on the benchmark indices increased significantly during 2022 and have remained elevated. A longer term average risks capturing data from a period that is no longer reflective of the current market conditions. We therefore use a 6-month average of the yield on the iBoxx indices.

Figure 3 iBoxx Non-Financial A and BBB 10Y+ indices



Source: Markit
Note: Data shown up to 30 September 2025

To reflect future market expectations around future yields over the regulatory period, we also apply the same approach to applying forward curve data evidence from the 2019 and 2022 decisions. This uses forward rates implied by Euro area government bond data provided by the ECB.

Although forward rates frequently do not provide an accurate market forecast we have used them in this report given the previous precedent we set out above, and given the absence of indexation or end of period 'true-ups' to account for differences between the benchmark rates at the time of the final decision and the outturn over the period.

Evidence

The table below shows the 6-month average of the benchmark A and BBB rated 10Y+ iBoxx indices. For the low end of the range, we use the average of the A and BBB indices which gives a nominal cost of debt of 3.95%, whereas for the high end of the range we use the yield on the BBB benchmark which is 4.01% nominal. This reflects a notional credit rating of between A and BBB which is in line with previous decisions and other regulated companies.

Table 4 iBoxx benchmark 6-month average yield

	Non-Financial A 10Y+	Non-Financial BBB 10Y+	A and BBB average
Nominal	3.89%	4.01%	3.95%

Source: Markit
Note: Data to 30 September 2025

We then apply a forward rate uplift to these yields. The table below shows the 10-year forward rates implied by AAA rated Euro area government bonds and all Euro area government bonds for each year of the upcoming price control. We take the average over the period, 0.61% for AAA-rated bonds and 0.81% for all government bonds, to inform our range.

Table 5 10-year forward rates implied by Euro area government bonds

	2027	2028	2029	2030	2031	Average
AAA rated Euro area government bonds	+0.34%	+0.50%	+0.63%	+0.74%	+0.82%	**+0.61%**
All Euro area government bonds	+0.47%	+0.67%	+0.84%	+0.97%	+1.07%	**+0.81%**

Source: ECB
Note: Yield curve from 30th September 2025

After applying the forward rates to our benchmark yield, we deflate the nominal benchmark yields using an inflation assumption of 1.87% as set out in Section 3. We show the build-up of our cost of new debt estimate below. This gives a range of 2.64% to 2.90 % in real terms, **before** additional borrowing costs.

Table 6 Frontier cost of new debt estimate

	Low	High
Nominal benchmark rate	3.95%	4.01%
Forward rate uplift	+0.61%	+0.81%
Inflation assumption	1.87%	1.87%
Cost of new debt (real)	2.64%	2.90%

Source: Frontier analysis
Note: Inflation assumption applied using the Fisher equation after the forward rate uplift

4.3 Additional borrowing costs

Additional borrowing costs are a recognised item that regulators need to account for, and, if not accounted for elsewhere in the price-cap, it is common practice to include these as an uplift to the allowed return on debt.

We consider it important that all relevant categories of additional borrowing costs are recognised. Each category includes costs that an efficient operator would reasonably be expected to incur. Omitting a relevant category would lead to under-funding of an efficient operator.

Additional borrowing costs are formed of three parts, these are:

1. **Issuance costs** – which relate to the fees incurred when raising debt; such as bank and legal fees;
2. **Carry costs** – which relate to the timing of debt raises and the rates available to daa on deposit balances; and
3. **Liquidity / Revolving Credit Facility (RCF) costs** – which relate to maintaining ongoing liquidity.

Regulatory precedent

Only one category of additional borrowing costs have been recognised by the IAA in previous decisions. This was issuance costs (referred to as an "issuance cost uptick" on the cost of debt).

However, as set out above, there are other categories associated with debt raising that also need to included somewhere in allowances. Specifically, liquidity costs and the cost of carry. These are costs borne by daa and there is strong regulatory precedent in other jurisdictions for including an allowance for these costs as part of the cost of debt. Examples of that recent precedent (from Ireland and GB) are set out in the table below.

Table 7 Regulatory precendent for additonal borrowing costs

Regulator	Price Control	Additional borrowing cost allowance	Items included
CRU	PR6	10-20 bps	Issuance, liquidity costs (including cost of carry)*
CAA	H7	25 bps	Issuance and liquidity costs
Ofgem	RIIO-3	25-29 bps	Issuance, liquidity (including cost of carry)
Ofwat	PR24	15 bps	Issuance, liquidity (including cost of carry)

Source: CRU, CAA, Ofgem, Ofwat

*Note: We have excluded 5 bps from Ofgem's RIIO-2 allowance of 25 bps to account for the CPIH risk mitigation which is not relevant for Dublin Airport. * CRU's allowance on the cost of debt accounts for issuance and cost of carry. CRU also allows pass through of costs related to credit facilities as a cost item, and therefore is treated separately to the cost of debt estimation. See CEPA (2025), PR6 Cost of Capital Estimation, p40.*

Estimation approach

To account for all relevant additional borrowing costs, we estimate all three components separately.

For **issuance costs**, we have used information provided by daa on the issuance costs associated with each of their bond issuances.[6] We then calculate the annualised uplift required to the annual yield on those bonds to cover these issuance costs over the lift of the bond. Specifically, the annualised cost is the difference between the IRR on the bond cashflows prior to fees – the yield at issue – and the IRR of the bond cashflows with the relevant deduction of fees.

Where long-term loans and bonds are used to finance regulated activities, there are additional costs that an efficient notional company incurs. The main cause for these is the 'lumpiness' of the debt in comparison to the size of the company. Cost of carry occurs when CAPEX is financed through issuing new bonds which are issued in advance of the CAPEX being incurred. This means the balance of cash from the bond issuance is run-down over time as CAPEX occurs. The **carry cost** on these excess cash balances is measured as the difference between the interest rate payable on the bond and the interest rate receivable on the excess cash.

In addition to cash liquidity costs, we also estimate the uplift to the cost of debt required for daa to retain its RCF for liquidity purposes. We assume that the RCF remains undrawn, but

[6] We use the bonds to estimate representative issuance costs for all debt for simplicity since the amortising profile of loans adds additional complexity to the calculations.

take into account fees such as upfront costs for setting up the facility and ongoing commitment fees.

We use a similar approach to Ofgem at RIIO-3 to estimate liquidity costs and cost of carry. This approach uses assumptions on the amount of cash that the business maintains relative to the debt stock and the costs of maintaining the RCF. Between the cash and the liquidity available from having an RCF in place, this accounts for costs in both the liquidity and cost of carry categories.

We provide more detail on the approaches to estimating each of these components and the figures we have used in Annex B.

Evidence

Our calculations suggest an uplift of 30 bps to account for additional borrowing costs. The breakdown of this estimate is shown in the table below.

Table 8 Breakdown of additional borrowing cost estimate

Component	Uplift
Issuance costs	5 bps
Liquidity costs (including cost of carry)	25 bps
Total	**30 bps**

Source: Frontier Economics
Note: Annex B provides calculation details

As noted in Annex B, we have taken an estimate of liquidity costs at the low end of the available estimates. The level of cash held by daa relative to the debt stock is currently at a higher level than is typically expected over the upcoming period. Given this trajectory, and that the implied liquidity costs at the start of the period are high relative to other regulatory precedent as shown in Table 7, we choose a value of 0.20% for the cash liquidity costs which is consistent with the estimates towards the end of the period. Once RCF costs are accounted for, this gives a 25bps estimate for liquidity costs including cost of carry.

4.4 Overall cost of debt

To estimate the overall cost of debt, we need an assumption of the relative proportions of debt, on average over the regulatory period.

In 2019 and 2022, the IAA used an assumption of 27% new debt for the upcoming regulatory period, based on the actual debt structure of the company. For the upcoming period, we have used data on the expected maturity of daa's existing debt and the issuance plan for the upcoming period. This suggests an average proportion of new debt of 52% for the upcoming period.[7]

Using this assumption and the components estimated in the subsections above, we estimate a cost of debt of 1.46% - 1.59%. This is summarised in the table below.

Table 9 Frontier allowed return on debt range

Component	Step	Low	High
Cost of embedded debt	A	-0.47%	-0.47%
Cost of new debt	B	2.64%	2.90%
Proportion of new debt	C	52%	52%
Allowed return on debt (excl. additional borrowing costs)	D = A * (1-C) + B * C	1.16%	1.29%
Additional borrowing costs	E	0.30%	0.30%
Allowed return on debt (real)	F = D + E	1.46%	1.59%

Source: Frontier analysis

7 In Annex A we provide more detail on our cost of debt calculations.

5 Risk-free rate

5.1 Regulatory precedent

For both the 2019 and 2022 decisions, the IAA used evidence from Irish and German 10-year nominal government bonds. Government bonds are perceived as the closest proxy for a risk free investment.[8]

Previous discussions have noted that in the Euro area, German government bonds are often considered to be the least risky assets. 10-year bonds were chosen since they are both liquid and have a relatively long investment horizon, reflecting that physical assets at Dublin Airport which have long asset lives on average.

In 2019, the IAA used 1,2 and 5 year averages of the yield from these bonds to construct a range. In 2022, given the changes in the inflationary and monetary policy environment, the IAA moved to a shorter 6-month average, with its advisors at the time stating that the changing environment meant that, *"the predictive power of long-run historical averages becomes questionable".*[9]

The IAA also used forward rates to capture market expectations around future yields over the regulatory period in both the 2019 and 2022 decisions. Its approach used 10-year forward rates on AAA and all Euro area government bonds. It then used evidence from Euro area bonds to project the yields using forward rates.

As discussed in Section 3, the IAA then deflated these yields using an average of German breakeven and ECB forecaster survey data.

5.2 Estimation approach

We estimate the RFR using both Irish and German 10-year nominal government bonds which is in line with the 2019 and 2022 methodology.

We agree with the Thessaloniki Forum recommendations that Irish bonds should be used and we consider that continuing to review Irish government bonds alongside German bonds will be an important way of capturing any country-specific risks that would also be relevant for Dublin Airport. We also agree that the use of 10-year bonds is appropriate so that it captures a longer-term investment horizon which is relevant for the long-term asset life of infrastructure investments.

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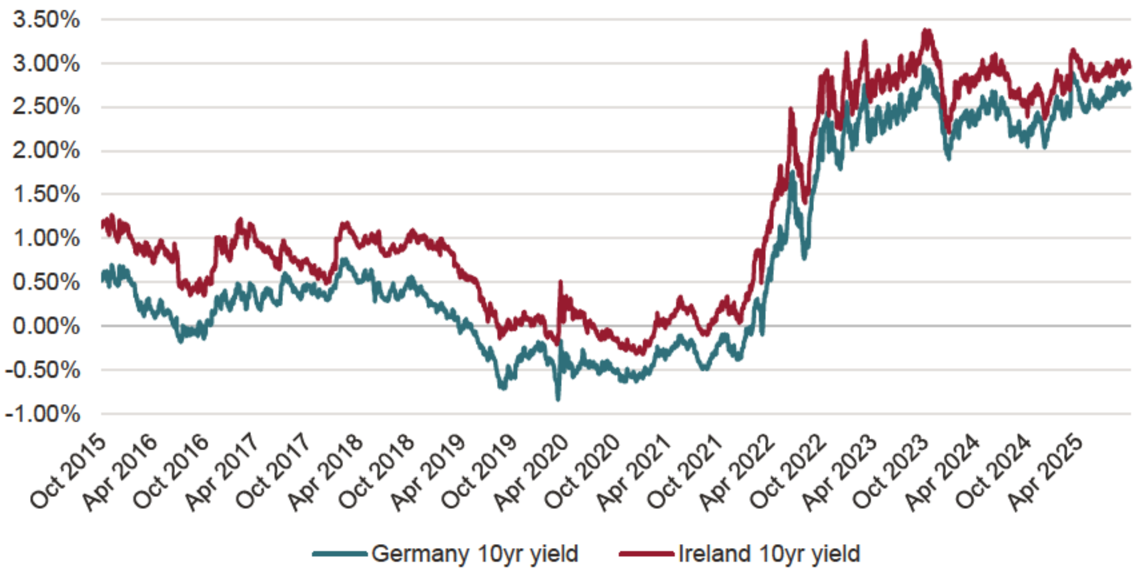
8 The use of Irish government bonds as benchmark is in line with the Thessaloniki Forum of Airport Charges Regulators (Thessaloniki Forum) recommendations, which suggest using bonds from the member state the airport is located in.

9 Swiss Economics (2022), "Dublin Airport Cost of Capital for 2022 Interim Review: Final Report", p16

Figure 4 Germany and Ireland 10-year nominal government bond yields



Source: LSEG
Note: 10-year benchmark yields to 30 September 2025

As shown in the figure above, there has been a significant shift in market conditions that was still rapidly evolving around the time of the 2022 decision.

Since the previous determinations, we have shifted from a monetary policy environment where nominal interest rates were negative to one where they are expected to persist at materially higher levels. A longer-term averaging period for RFR risks capturing data that is no longer reflective of recent or forward-looking capital market conditions.

This is true of both Irish and German government bonds; and more broadly is a trend across government bond markets in many advanced economies.

To reflect current market conditions, we use a 6-month average of the yield on these bonds. We also apply the same approach to applying forward curve data evidence from the 2019 and 2022 decisions to capture market expectations around future yields over the regulatory period. This is the same approach applied to the cost of new debt described in Section 4.2.

5.3 Evidence

We set out our estimate of the RFR in the table below. We use the 6-month average of German government bond yields as the low end of our range and the 6-month average of Irish government bond yields at the high end. We then apply the same forward rate adjustment as calculated in Section 4.2 and we deflate the nominal yields using an inflation assumption of 1.87% as set out in Section 3. This provides a range of 1.31% to 1.83%.

Table 10 Frontier estimate of the RFR

	Low	High
Nominal government bond yield	2.60%	2.93%
Forward rate uplift	+0.61%	+0.81%
Inflation assumption	1.87%	1.87%
RFR (real terms)	1.31%	1.83%

Source: LSEG, ECB

Note: Inflation assumption applied using the Fisher equation after the forward rate uplift

6 Total market return

The TMR represents the return an investor could expect from holding the theoretical 'market portfolio', i.e. a portfolio which includes all types of assets available for investment. This figure cannot be observed directly in the market so must be estimated.

6.1 Regulatory precedent

In the 2019 and 2022 decisions, the IAA estimated the Equity Risk Premium as the difference between the RFR and Total market return (TMR). There is ongoing regulatory support for this approach in recent decisions in other sectors, with CRU adopting this approach since the 2017 PC4 decision. An ongoing focus on TMR helps support regulatory stability and predictability.

In the 2019 and 2022 decisions, the IAA used two main approaches for estimating the TMR:

- Historical evidence approach which uses long-term averages of actual realised total market returns; and
- Forward looking approach which uses a forward-looking dividend discount model (DDM) to estimate the TMR.

We discuss each of these below in turn.

Historical evidence

For the historical approach, the IAA used long run averages of realised market returns from the DMS dataset in both the 2019 and 2022 decisions. The DMS dataset provides data on realised returns since 1900, and is used by several other regulators such as CRU as well as the CAA in the UK.

The IAA used both Irish and European returns to inform its historical estimates in 2019 and 2022. However, the data on composite European returns in the DMS data that the IAA used includes non-Eurozone countries such as the UK and Russia (before 2022). CRU, in its determinations, has an alternative approach to capturing European returns which uses the median of the returns from the 10 Eurozone countries in the DMS dataset instead of the composite European returns series.[10]

Forward looking evidence

In 2019 and 2022, the IAA also used forward-looking DDM evidence to estimate the TMR. This was estimated using the Stoxx 50 Europe price index, using a constant dividend growth assumption. This used annual data on the price and dividends of the constituents of the index and GDP growth forecasts as a proxy for the forward-looking dividend growth rate.

10 Austria, Belgium, Finland, France, Germany, Italy, Ireland, Netherlands, Portugal and Spain.

6.2 Estimation approach

6.2.1 Long-run historical evidence

We consider that the IAA should continue to place weight on long-run historical evidence – this helps provide regulatory stability and predictability.

The DMS dataset provides a consistent reference point for taking such long-run historical averages. We consider the IAA's current approach of considering both Irish and European evidence is appropriate. However, we do not agree with the specific data series used to capture European returns.

Since the data on composite European returns in the DMS data includes non-Eurozone countries, we do not consider this data series appropriate to estimate European returns.

Data from countries within the data series such as the UK and Russia are less relevant to the Irish market compared to Eurozone countries. Therefore, to estimate European returns, we follow the approach used by CRU and estimate the historical returns for each of the 10 eurozone countries in the DMS dataset and use the median of these estimates.

6.2.2 Other evidence sources

In terms of the forward-looking evidence that the IAA considered in previous decisions, we consider that there are some benefits to drawing upon market-based measures such as DGM. In particular, as they can help provide a different perspective to the long-run historical averages provided by DMS (which are largely fixed from year-to-year).

However, we emphasise that approaches such as DGM need to be transparently and robustly estimated if they are to support regulatory confidence and predictability. We have several points of concern with the previous DGM evidence that the IAA relied upon, and would continue to hold concerns if a similar approach were taken again. Our key concerns are that:

- The analysis was a single-stage model – a multi-stage model can help capture short-term and well as long-term dynamics in the market. There can be a divergence between the two rates depending on market conditions.
- The analysis relied solely on GDP growth as a proxy for dividends – for short-term dividend growth rates actual dividend forecasts are available so a complete reliance on GDP as a proxy is not required.
- The model was low frequency – figures were presented on an annual basis but higher frequencies of data help provide a clearer indication of how discount rates react to a range of macroeconomic events. With annual data there are also concerns about the point of time analysis is undertaken, and whether unnecessary averaging has occurred.

- The index selected was too narrow – a broad market index can provide a better proxy for the market portfolio and avoid concentration issues (to individual companies or sectors).
- It was unclear if share buybacks were accounted for – dividends are just one way in which cashflows can be returned to investors, with another increasingly important source being share buybacks. It was not clear how buybacks were treated, but their omission would be a significant issue.

6.3 Evidence

In the table below, we provide historical estimates of the TMR for Irish and European returns. These are based on the arithmetic mean of returns in the DMS dataset using 125 years of data (1900 to 2024). We consider the arithmetic mean to be the most relevant estimator of TMR using the DMS dataset.

Table 11 Historical real long-run equity returns

	Ireland	European mean	European median
Arithmetic mean	6.88%	6.71%	6.52%

Source: Frontier analysis of DMS data

Note: European estimates based on Eurozone countries within the DMS dataset. Austria, Belgium, Finland, France, Germany, Italy, Ireland, Netherlands, Portugal and Spain

Given the evidence in the table above, our view for the TMR range is **6.5% to 6.9%.**

7 Equity beta

Equity beta (βE) represents the risk shareholders are exposed to relative to the overall market index. Since daa is not a publicly listed company comparator companies are used to estimate the equity beta range for Dublin Airport.

In this section we discuss the Asset beta (βA). This represents underlying asset risk for a company with zero leverage. In order to estimate asset beta for the comparator companies, we de-lever the equity betas for each.

When considering an appropriate equity beta for daa, we then re-lever using the notional gearing assumption, which provides the proportion of debt financing, to calculate the equity beta used in the CAPM estimation of the cost of equity. We discuss the appropriate notional gearing in Section 9.

7.1 Regulatory precedent

7.1.1 Asset beta estimation approach

In the 2022 decision, the IAA (based on work by Swiss Economics) estimated Dublin Airport's asset beta based on a weighted average of the comparators set out in the table below.

Table 12 Weigting on different asset beta comparators in the 2022 decision

Company	Weighting
AENA	15%
ADP	12%
Fraport	12%
Zurich	12%
Auckland	23%
Vienna	15%
Copenhagen	12%

Source: Swiss Economics (2022), Dublin Airport Cost of Capital for 2022 Interim Review; Final Report
Note: Figures may not sum to 100% due to rounding

The weightings for each of these airport comparators varied from 12% to 23%, based on the assumed comparability of each of the comparators to Dublin Airport. This was a subjective assessment based on the differences in economic regulation, demand and business risk for the comparators relative to Dublin Airport.

Swiss Economics then used 1 and 2 year estimation windows with daily data as well as 5 year estimation windows using weekly data. For the 2 and 5 year estimates, Swiss Economics removed some months of data to adjust for the impact of the COVID pandemic. Swiss Economics then used the Hamada-formula to estimate asset betas – based on market values of equity, book values of net debt, and effective tax rates.

Following this approach, Swiss Economics estimated an asset beta range of 0.59 to 0.61 based on the weighted average of the comparators for the different estimation windows. This led to an equity beta range of 1.11 to 1.15 using the Hamada formula for re-levering the beta.[11]

We consider that this approach failed to capture the high beta environment at the time of the previous decision. This is for two main reasons:

- The comparator set included companies which are not liquidly traded. Including illiquid comparators causes bias in the estimates.
- The exclusion of certain months of data arbitrarily reduced the beta estimates. These therefore cannot be considered as representative of airport betas at the time of the decision.

We address both of these points in our estimation approach below.

7.2 Estimation approach

7.2.1 Comparator set

With regards to airport comparators, we note that there is a limited set of airports available to estimate the beta for Dublin Airport. The available set of airports therefore needs to be appraised carefully. It is our view that a suitable comparator must:

- Have **sufficient similarities in terms of regulatory and business risks**. While there are a range of possible comparators, there are differences in the regulatory regime that these businesses face and the extent of diversification within the stock market listed entity. Given that there are no perfect comparators for the risks that Dublin Airport faces and that there are limited comparators available, we consider, in the round, all of the comparators that pass our liquidity tests below. While we acknowledge that the regulatory regimes and the level of diversification do differ between these comparators, we do not consider that there are clear objective reasons to conclude that the risks faced by these comparators are so materially different to Dublin airport that they should be excluded.
- Be **able to pass a number of liquidity tests**. There are a number of data points that should be reviewed in order to obtain a rounded view of the liquidity of a stock. Reviewing this data is essential, as stocks with poor liquidity can bias beta estimates.

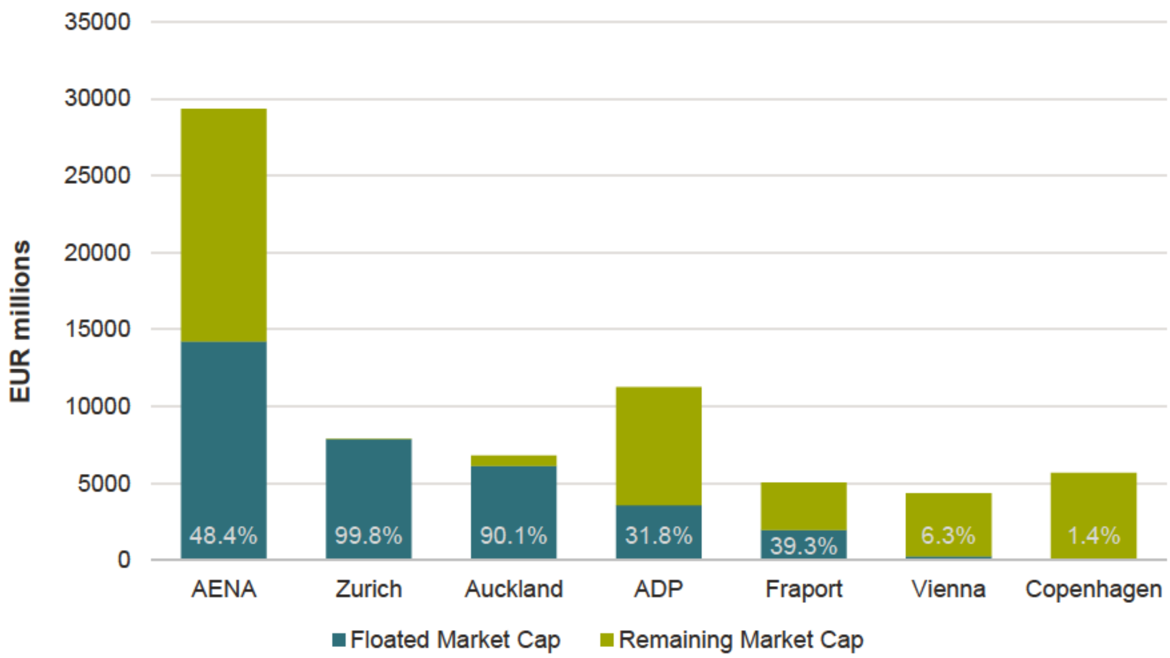
[11] Swiss Economics used a zero debt beta assumption.

We do not consider that the previous comparator set drawn on by the IAA is suitable. This mainly due to liquidity issues with some of the comparators used. When testing the liquidity of possible comparators, we consider two common liquidity metrics:

- Proportion of floating shares (i.e. what proportion of the shares of the company are traded on the stock market) in conjunction with total market capitalisation; and
- The bid-ask spread.

In the figure below, we show the market capitalisation of each of the potential comparators and the proportion that is floated on the stock market.

Figure 5 Market Capitalisation and proportion of free float



Source: LSEG
Note: 2 year average up to 30th September 2025

The key observation from this chart above is that **Vienna and Copenhagen** have a very low proportion of shares traded on the stock market (6.3% and 1.4%, respectively). This, combined with a relatively low market capitalisation compared to other companies in the sample, means that **only a small amount stock is available to trade**.

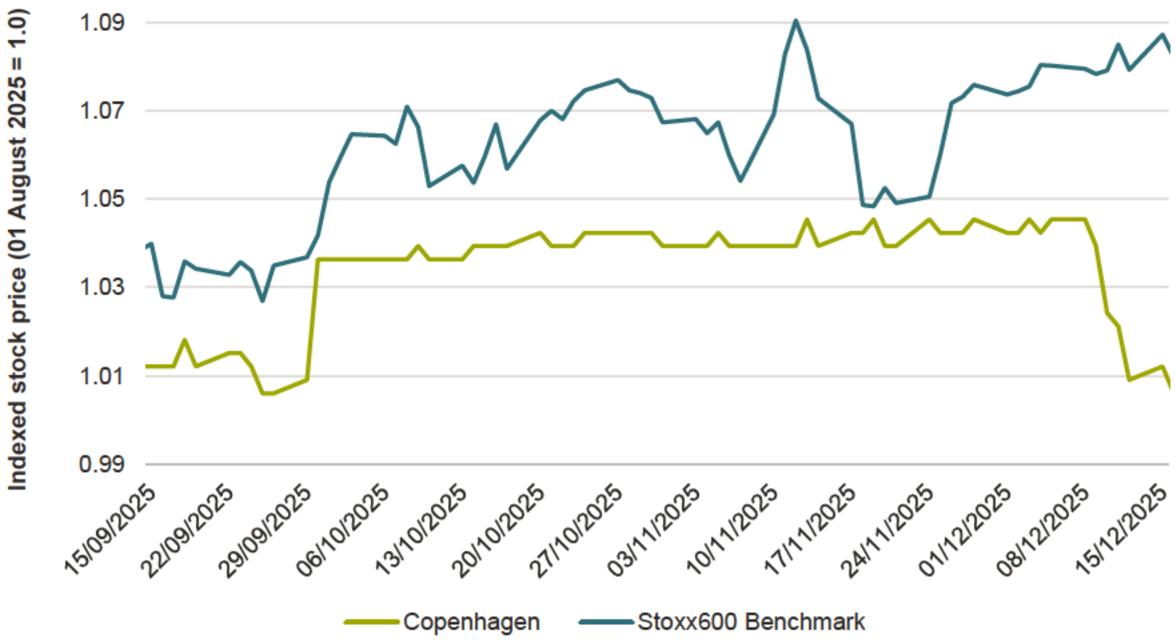
In the case of Vienna, less than EUR 300m market value is available to trade. For Copenhagen the equivalent figure is less than EUR 100 million.[12] In comparison, the other companies in the sample have over EUR 1 billion in floated stock.

12 This is based on a 2-year average up to September 2025 of free float % and market cap data from LSEG.

The liquidity of Copenhagen Airport has also worsened since the previous decision. As of 30 September 2025 the Danish State has acquired additional shares, now holding 98.6% of the shares in Copenhagen airport.[13] As shown in the figure below, this has led to a significant period of time where the share price is relatively flat (with many days with no change in the price from the day before) while the benchmark index continues to fluctuate daily.

This suggests that there has been **very limited trading** of the remaining shares which will therefore create a bias on the beta estimates for Copenhagen airport.

Figure 6 Index of Copenhagen Airport share price relative to the Stoxx600 Benchmark index September – November 2025



Source: LSEG
Note: Daily stock prices

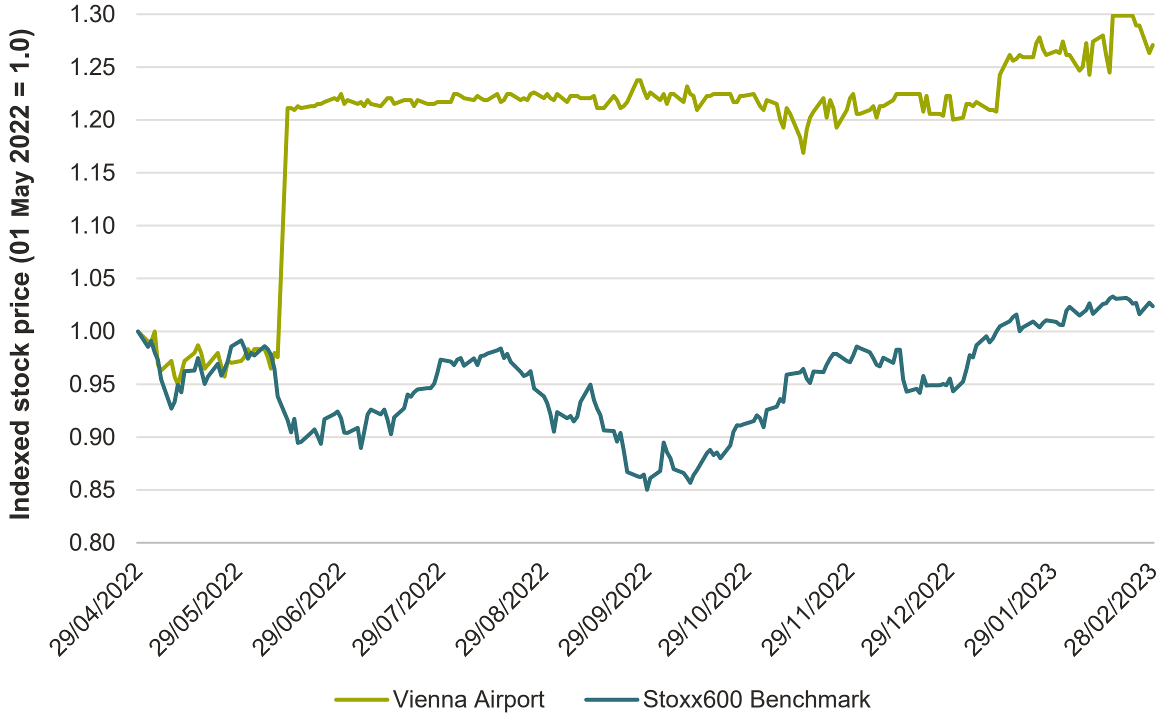
Similarly, Vienna airport has also had periods where its share price has been flat within the estimation window. In June 2022, Airports Group Europe launched a mandatory takeover offer to shareholders at a premium to the traded share price.[14]

As shown in the figure below, there was a sudden increase in the share price of over 20% following this announcement, followed by an offer period with very little share price movement in comparison to the benchmark index. This will impact the beta estimates in a way which is not reflective of the underlying risk of a notional airport.

13 The Danish State's acquisition of Copenhagen Airports A/S has been completed

14 Vienna airport - Partial offer - IFM (2022)

Figure 7 Index of Vienna Airport share price relative to the Stoxx600 Benchmark index April 2022 – February 2023



Source: LSEG
Note: Daily stock prices

The above evidence strongly suggests that beta estimates from Vienna and Copenhagen need to be treated with caution as there is greater risk of bias due to these recent events and the relatively low volumes being traded.

As an additional liquidity test, we also review the bid-ask spread for the possible comparators in the table below. The outputs on this measure are also high (worse liquidity) relative to other airports for Vienna and Copenhagen (above 0.2%). This builds on our findings above, that these stocks have worse liquidity than others in the sample.

In addition, the bid-ask spread metric suggests that there may also be liquidity issues with Auckland as it has a higher bid-ask spread of 0.31%. These are above the spreads that you would expect from liquidly traded companies, such as AENA and ADP, which have bid-ask spreads of below 0.1%.

We also consider the bid-ask spread for Fraport of 0.17% to be high. It is materially above the bid-ask spread for AENA, ADP and Zurich for which we do not observe any issues with liquidity. While we do not completely exclude Fraport on this basis, this suggests that risks to beta estimates from liquidity issues are elevated compared to others in the sample.

Table 13 Bid-ask spread of selected airports

Company	Bid-ask spread (%)
AENA	0.04%
ADP	0.05%
Fraport	0.17%
Zurich	0.02%
Auckland	0.31%
Vienna	0.25%
Copenhagen	0.20%

Source: LSEG

Note: Data considers a 2-year average up to September 2025. Bid-ask spread is calculated as the 2-year daily average of the following formula, using each day's closing price: (ask price-bid price) / mid-price

Reviewing both of these liquidity tests we conclude that three comparators should **not be included** in the beta estimation sample, these are:

- Copenhagen – based on floated shares, specific events and bid-ask spread;
- Vienna – based on floated shares, specific events and bid-ask spread; and
- Auckland – based on bid-ask spread.

In addition, we consider that there is also a risk that estimates of Fraport beta are impacted by liquidity bias due to its high bid-ask spread. We consider that AENA, ADP and Zurich have lowest risk of liquidity related bias.

7.2.2 Data frequency and estimation window

As noted above, airports are subject to floating share levels that are typically below 50% due to public equity stakes. For this reason, we consider it more robust not only to rely on daily data when estimating raw equity betas, but also to include weekly data.

Weekly frequency helps to mitigate the impact of short-term market noise (such as thin trading), which can be particularly relevant for stocks with lower free float. By addressing these distortions, weekly data provides a complementary perspective and allows for more reliable inference of the systematic risk faced by companies.

We see merits in relying on 10-year, 5-year and 2-year data. In relation to the 2-year window, we note a sharp fall in observed betas around April, which appears to coincide with episodes of heightened market volatility following sudden changes in U.S. tariff policies. While such short-term events can temporarily affect beta estimates, giving some weight to recent data remains valuable, as it incorporates investors' most up-to-date perceptions of risk and strengthens the robustness of the overall estimation by reflecting current market conditions.

Regarding the 5-year horizon, this no longer includes data from the initial COVID-19 shock in March 2020. While this does include impacts from lockdowns and other policies during the pandemic period, the impact of these on the 5-year estimates is falling over time. A large proportion of the sample can be considered 'post pandemic', and this proportion will increase by the time of the final decision for this upcoming control period.[15]

The 10-year horizon captures different cycles and includes the COVID-19 period within a sufficiently long timeframe. More specifically, data affected by COVID-19 represents around 20% of observations.[16]

While there is now some post-pandemic data that can be useful when estimating beta, it is important to not completely discount data from the pandemic period. Shocks like this may occur sometime in the future again and therefore discounting data completely from these periods risks underestimating the equity beta. We therefore consider that taking a range of estimation windows is a more robust approach relative to the previous approach of arbitrarily removing certain months of data from the estimation.

7.2.3 Heathrow's asset beta as a cross-check

As a cross-check, Swiss Economics compared its asset beta estimate for Dublin Airport with the asset beta determined by the CAA for H7. It concludes that *"Overall, HAL's demand risks should be comparable to Dublin Airport's".*[17]

We agree that the CAA's H7 decision is a useful reference point for Dublin Airports asset beta, however there are several reasons why Dublin Airport could be expected to have greater systematic risk than Heathrow:

- Heathrow is significantly capacity constrained. At the time of the 2022 decision (as well as the CAA's H7 decision), demand was lower due to the effects of the pandemic with Swiss Economics' noting "*HAL is possibly less capacity constrained over the coming years during economic recovery than before the pandemic".*[18] Since 2022, we have seen demand recover strongly, and Heathrow is now more capacity constrained again.[19]

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15 Although it is not possible to identify an exact end date for the pandemic, the WHO declared an end to COVID-19 as a global health emergency in May 2023. We note however that most major travel restrictions had already been removed by this date.

16 Based on a start date around the end of February 2020 and the end date of May 2023 as noted in the footnote above.

17 Swiss Economics (2022), Dublin Airport Cost of Capital for 2022 Interim Review; Final Report

18 Swiss Economics (2022), Dublin Airport Cost of Capital for 2022 Interim Review; Final Report

19 The December 2025 Heathrow Investor Report stated that, "*demand is already outpacing the limits of current infrastructure reinforcing the urgency to deliver the improvements outlined in the H8 Business Plan*."

- Heathrow now has a traffic risk sharing mechanism (TRS) which significantly reduces demand risk at the airport.[20]
- Dublin Airport also has a different traffic mix to Heathrow. According to OAG data for 2025, the proportion of Low Cost Carriers (LCCs) – in contrast to mainline network carriers – at Heathrow was 2% compared to 48% at Dublin Airport.[21]

Given this, while we agree with the use of Heathrow's asset beta as a reference point, this should be used as a **lower bound** for Dublin Airport's asset beta.

7.3 Evidence

We summarise in the following table the asset betas which we have estimated for the comparators described in this section. We use the Harris-Pringle formula with zero debt beta to de-lever our raw equity beta estimates. The equity index we use for all comparators is the Stoxx 600 index.

Table 14 2-year, 5-year and 10-year average asset betas

Comparator	2-year	5-year	10-year
AENA	0.64	0.74	0.72
ADP	0.56	0.60	0.71
Fraport	0.22	0.39	0.49
Zurich	0.63	0.69	0.75
Average	**0.51**	**0.61**	**0.67**
Average excl. Fraport	**0.61**	**0.68**	**0.73**

Source: LSEG

The figures presented above are the average of daily and weekly betas for each of the timeframes set out. For example, the figures 5-year column reflects the average of the 5-year daily unlevered beta and the 5-year weekly unlevered beta using data until the end of September 2025.

Regarding Fraport, although we include this airport group in our beta estimation process, we consider that its unlevered beta values recently appear to be an anomaly. The levels observed

20 The CMA set out that, "*The TRS mechanism has been introduced to reduce the volatility of cash flows facing HAL in response to changes in traffic, by: (i) allowing HAL to recoup a portion of unrecovered revenue when volumes are lower than forecast; and (ii) requiring HAL to give money back when volumes are higher than forecast*." The TRS mechanism has two sharing thresholds, a higher sharing rate applies to large deviations from forecast.

21 Weighted by seats; the proportion using frequency of flights was 3% and 45%, respectively.

are unusually low and lower than sectors that are understood to have lower systematic risk due to stable revenues, for example, water and energy utilities.

We particularly note that in recent years both the levered and asset beta has been falling significantly. This is shown in the following chart, where it can be seen that the unlevered beta of Fraport has recently been below 0.2 (measured using a 1-year beta window). This compares with an unlevered beta of 0.31-0.35 for ESBN in the recent PR6 determinations by CRU.[22] Given that the ESBN, as an electricity network, is not subject to volume risk like airports it is logically inconsistent for an airport to be lower risk. It is possible that low liquidity, as suggested by the high bid-ask spread, may bias the beta estimates for Fraport downwards.

Figure 8 Fraport airport. 1-Y levered and unlevered beta

Source: Frontier Economics based on LSEG data
Note: 1-year beta window

We consider this an unusual occurrence that needs to be considered when reaching a judgement on the appropriate asset beta value to use for Dublin Airport.

To help isolate the impact of Fraport's unusually low beta, we include an average **excluding** this specific comparator.

22 CRU (2025), Price Review Six (PR6) Transmission Revenue for 2026 – 2030, table 5.4.2. We also note this value is below asset betas used for regulated utilities in the UK too – for which revenue risk is also low.

7.3.1 Setting a range for the asset beta

To select a lower and upper bound from this data we draw upon the discussion of the evidence set out in the section above. We use an asset beta range of **0.61 - 0.67** for the purposes of calculating the cost of equity range. We outline our reasoning for this selection below.

The aviation sector was acutely impacted by the COVID-19 pandemic. During periods where significant travel restrictions were in place, betas for airports rose significantly compared to pre-2020 values. Passenger numbers have subsequently recovered, growing strongly over the past few years, and over that timeframe betas have reduced from the high-levels observed during the pandemic. When considering what is representative for a forward-looking five-year period, there is a degree of judgement over which timeframes to draw evidence from. We consider evidence from a range of dates, some excluding the pandemic, and some including the pandemic to inform beta range.

The lowest estimates of asset beta are found in the 2-year column. It is also for this timeframe that we have the most acute concerns about Fraport's data. Given our concerns about Fraport, we draw on average of the comparators excluding Fraport (0.61) to inform the lower end of our beta range.

For the upper end of our range, we place more weight on the longer-term betas (0.61 for the 5-year ones and 0.67 for the 10-year ones). These capture periods where there was larger demand shocks, including COVID-19. We consider it more reasonable to draw on all four comparators in this case. Firstly, because concerns about Fraport being anomalous are reduced over those horizons. Second, because there is a wide spread of beta values within the sample over those time frames – meaning that placing a high weighting on a given comparator within the group changes the output significantly.

We do not place weight on data that is solely drawn from before the pandemic e.g. pre-2020. We consider that type of sample if less relevant 2026 determination as it would not reflect recent geo-political risks, risks to cross-border trade and trends in air-travel that have emerged following the pandemic. More generally, the scale of the impact on the aviation sector from the pandemic may have also 're-baselined' investor expectations about risk in airport investments.

Our asset beta range of 0.61 to 0.67 is also consistent with the Heathrow cross-check, as the CAA had an H7 range of **0.44 to 0.62**. Our range for Dublin Airport gives figures higher than the mid-point value of that range (0.53), which was the value the CAA used for price-cap setting purposes.

Our range represents an increase from the previous asset beta point estimate of 0.60. This is as result of methodology changes to make the estimation more robust. Our range is higher than pre-pandemic estimates, in line with the 're-baselined' investor expectations about risk in airport investments, but lower than a comparatively robust estimate at the height of the pandemic impacts.

8 Pre-tax cost of equity

Combining the individual CAPM parameters estimated in Sections 5 to 7 we estimate a post-tax cost of equity range of 7.58% to 8.62%, this is shown in the table below.[23]

In line with previous Dublin Airport WACC estimation exercise we also set out a pre-tax cost of equity figure. Consistent with precedent we estimate this by applying a tax rate to the real post-tax cost of equity range.

In the previous charging decision for 2023-2026 the IAA assumed a corporate tax rate of 12.5% for Dublin Airport. Based on discussion with Dublin Airport, we have adopted a higher assumption than this for the purposes of this report. Dublin Airport has outlined that the majority of activities attract the 12.5% rate, but some revenues streams attract a higher 25% rate. We therefore base the tax rate in our WACC estimation on the average tax rate from the audited regulated entity accounts. We have not reviewed as part of this report whether the blended rate is likely to differ from these past values or considered other factors that could affect the tax rate of the regulated entity.

As set out in the table below, the average rate for both 2024 and 2023 was 16.1%.

Table 15 Average tax rate for Dublin Airport

	2024	2023
Profit on ordinary activities before taxation	186,139	131,241
Taxation charge	29,925	21,100
Implied tax rate	16.1%	16.1%

Source: daa plc; Financial Review and Extract from Regulated Entity Accounts.
Note: Thousands of Euros. Year end 31 December.

To estimate the real pre-tax cost of equity we apply the following formula:

$$real, pre\ tax\ cost\ of\ equity = \frac{real, post\ tax\ cost\ of\ equity}{(1-t)}$$

The tax rate (t) is set equal to the 16.1% outlined in the table above. As set out in the table below, this produces a real pre-tax cost of equity of 9.11% to 10.28%.

23 The equity risk premium is calculated as the total market return net of the risk-free rate. Equity beta is calculated using our asset beta range, zero debt beta and the Harris-Pringle formula.

Table 16 Allowed return on equity

Component	Frontier Low	Frontier High
Notional Gearing	50%	50%
Risk-free rate	1.31%	1.83%
Total Market Return	6.50%	6.90%
Equity Risk Premium	5.19%	5.07%
Asset beta	0.61	0.67
Equity beta	1.22	1.34
Cost of equity	**7.64%**	**8.62%**
Tax rate	**16.10%**	**16.10%**
Pre-tax cost of equity	**9.11%**	**10.28%**

Source: Frontier Economics, Dublin Airport regulated company accounts FY2023, FY2024

Note: Gearing assumption discussed in Section 9

9 Gearing

There is a long-running regulatory precedent for Dublin Airport of applying a notional gearing assumption of 50%.

We note that this RAB based gearing assumption is lower than some regulatory price control decisions for airports (Heathrow is 60%). But is above some measures of actual gearing from (i) listed airports – based on enterprise value gearing; and (ii) Dublin Airports actual net debt to RAB ratio – which has ranged from 34% to 41% recently.[24]

Based on this information we consider 50% remains an appropriate assumption for a notional airport operator.

24 With the exception of Fraport.

10 WACC estimate

In the table below we combine the conclusions from each of the preceding sections into a real, pre-tax WACC estimate for Dublin Airport. As shown, the range is from 5.28% to 5.94%. In the table we show how this compares to the figures used in the 2022 interim decision.

As shown, a key driver of the higher WACC compared to the 2022 decision is the cost of debt, which goes from being a negative figure in real terms to 1.46% to 1.59%. Other differences are driven by the cost of equity, and tax rate assumption.

Table 17 WACC estimate before uplifts

Component	2022 decision	Frontier Low	Frontier High
Notional Gearing	**50%**	50%	50%
Risk-free rate	-0.45%	1.31%	1.83%
Total Market Return	6.25%	6.50%	6.90%
Equity Risk Premium	6.71%	5.19%	5.07%
Asset beta	0.60	0.61	0.67
Equity beta	1.13	1.22	1.34
Cost of equity	7.13%	**7.64%**	**8.62%**
Cost of embedded debt	-1.16%	-0.47%	-0.47%
Cost of new debt	1.29%	2.64%	2.90%
Issuance and liquidity costs	0.05%	0.30%	0.30%
Proportion of new debt	27%	52%	52%
Cost of debt	**-0.45%**	**1.46%**	**1.59%**
Vanilla WACC	3.34%	**4.55%**	**5.11%**
Corporation tax	12.50%	16.10%	16.10%
Pre-tax cost of equity	**8.15%**	9.11%	10.28%
Pre-tax WACC (before uplifts)	**3.85%**	**5.28%**	**5.94%**

As set out in the table, we refer to this WACC figure as "**before uplifts**". In this section we consider what uplifts are appropriate to apply to the WACC based on the values chosen, the regulatory precedent of Dublin Airport, and the price control framework in place. The two key reasons to consider an uplift to WACC are:

- **Aiming-up** – there are multiple reasons why some aiming-up on the WACC is appropriate. We concur with the IAA that the risks of underestimating the WACC are greater than the risks of overestimating; and agree that relevant factors to consider are the economic risks associated with underinvestment, measurements error of WACC components, and the scale of the CAPEX programme within the charging period. Aiming-up has been applied in past Dublin Airport charging decisions and is commonplace in other regulatory allowed rate of return settings too.

- **An inflation adjustment** – it is important that the inflation figures used in the estimation of the real WACC are consistent with the inflation figures used to inflate the asset base. Otherwise mismatches can arise. An adjustment to the WACC can help achieve consistency between the inflation figures used in estimating the WACC and the Irish CPI index used to inflate the asset base.

Each is discussed in more detail in the subsections below.

10.1 Aiming up

There are multiple long-run benefits from aiming-up on the WACC. While these need to weighed against the upward pressure on the price-cap that results, we believe that the reasons for applying aiming-up in this next regulatory period are particularly strong. Key factors we consider relevant are:

- **Regulatory predictability and stability** – a stable and predictable regulatory framework helps support a given credit rating for regulated companies such as Dublin Airport. As aiming-up was applied in the cost of capital decisions in 2019, and in the interim decisions since then, we consider there are stability benefits in retain this aspect of the framework going forward – particularly at a time when cashflows at the airport may be under higher pressure from expenditure levels. We also note that many other regulators apply aiming-up, particularly during periods where investment needs are significant, this is true of recent regulatory decisions in Ireland and other jurisdictions too.

- **Enabling investment and growth** – aiming-up helps support investment, which in turn drives growth in the economy. The relative risks of under-investment versus over-investment is something that the IAA noted in the Issues Paper published in July 2025. In past periods we note that the IAA referred to the North Runway scheme as one key contributor to the need to aim-up. Looking ahead to investment plans proposed for the next price control period we find that high CAPEX levels are expected to be sustained. CAPEX in the business plan is around €750m per year on average, leading to double digit real RAB growth per year.

- **Measurement error in parameter estimation** – this was a further point acknowledged by the IAA in the July 2025 issues paper. In particular we consider this risk is greatest with respect to asset beta for Dublin Airport. The aviation sector has recently undergone an extremely large shock to passenger volumes and revenues. Perceptions of a similar event in future are therefore important, and are likely to be enduring for a prolonged period. We note the lower end of our beta range, which draws on two years of recent market data includes none of material pandemic related travel restrictions and gave a value of 0.61.

- **Competition for infrastructure financing** – looking beyond CAPM, we also find that there is reasons to assume competition for scarce infrastructure financing will remain robust for an extended period of time. For example, across major economies there is a drive to upgrade energy infrastructure to deliver on net zero commitments and meet rapidly expanding demand for data centres, and there are also significant opportunities to investment in alternative aviation assets too e.g. with large sums of financing being required for Heathrow Airport expansion. This strong demand for infrastructure financing is a market reality that needs to be considered when setting an appropriate allowed rate of return. As set out in the market context section, there has also been rapid growth in the capital required for data centres globally – with multi-billion debt and equity market investments being made to provide computing power for AI. As a result, airports face intense competition globally for capital. It is important that the WACC is estimated with a clear consideration of the need to have ongoing access to capital markets over the next five years.

Given the factors above, we consider that some aiming-up on the WACC remains appropriate for the 2027 to 2031 period.

10.2 Inflation adjustment

The regulatory asset base (RAB) of Dublin Airport is linked to inflation. Therefore the WACC is expressed in real-terms to avoid double counting of inflation.

However, it is important to consider how inflation is being applied when deflating parameters used in the WACC calculation, and how that corresponds the inflation indexation applied to the RAB. Inconsistencies could lead to a mismatch between the WACC and RAB when calculating the allowed return on capital used in the price-cap.

In Section 3 we drew upon breakeven inflation from German government bonds as a primary source when setting an inflation assumption. This inflation assumption is applied when calculating both the risk-free rate in the cost of equity, and in calculating the cost of debt. The reason we placed weight on breakeven inflation evidence from German government bonds is that it provides a measure of long-term inflation expectations, matching to the long tenor of bonds be considered.[25] Specifically, breakeven inflation from German government bonds captures market expectations in relation to **Euro area** inflation (HICP), as this is the inflation index applied to inflation-linked German bonds.[26] The other source we place weight on is ‘longer-term’ forecasts provided by the ECB through its Survey of Professional Forecasters (SPF), this is also a long-term **Euro area** inflation (HICP) figure.

Turning to the inflation applied to the RAB, the specific index used is the Consumer Price Index (CPI) published by the Central Statistics Office (CSO). This inflation index is **specific to Ireland**.

25 Government bonds in the case of the risk-free rate estimation, and corporate bonds/loans in the case of the cost of debt.

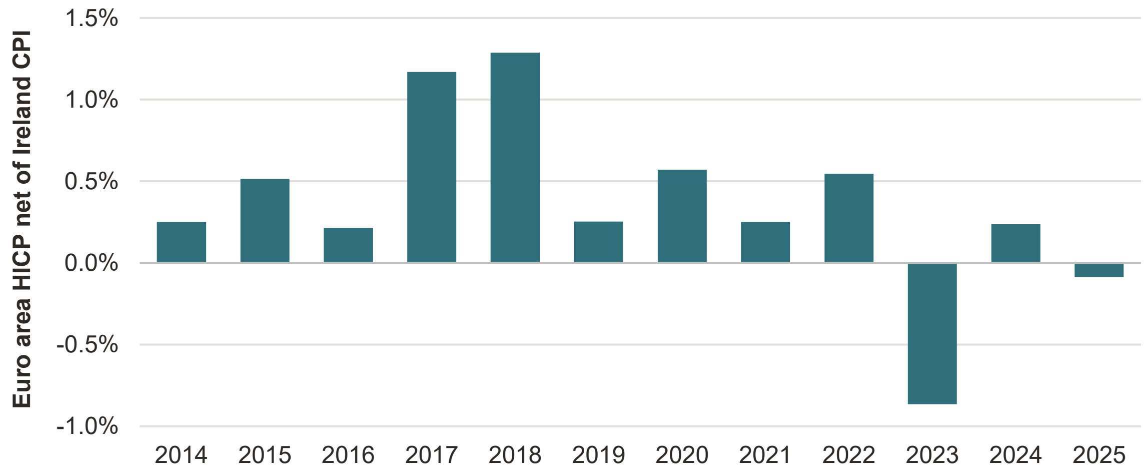
26 The inflation indexation for both nominal value and coupon payments is based on the unrevised Harmonised Index of Consumer Prices (HICP) of the euro area (total index excluding tobacco).

Were these two inflation indices to have the same rate of change, then the inflation assumption used in deflating the WACC and the inflation index applied to the RAB would match. However, in practice we observe that the Euro Area HICP inflation rate and the CSO CPI inflation rate are materially different historically. Due to these differences we consider that there is a case for considering an inflation adjustments to the WACC to improve consistency within the price control framework.

To assess the magnitude of an inflation adjustment we consider the historical differences between CSO CPI and Euro Area HICP.

In the chart below we set out figures for the annual inflation rate on the Euro area HICP index net of the annual inflation rate on the CSO CPI index. The data show that the Euro area inflation rate has exceeded the annual inflation rate for Irish CPI – as the net figure is positive – 10 out of the 12 years shown. We focus on data from 2014 onwards as this corresponds to the period following the Euro area sovereign debt crisis.[27]

Figure 9 Historical difference between Euro area HICP inflation and Irish CPI inflation



Source: CSO, ECB, Frontier Economics
Note: Annual average inflation rates

The average annual difference between the two inflation rates is 0.4 percentage points over the period shown in the chart above. Looking back over the past 20-years there is more volatility through the Global Financial Crisis (GFC), but the average figure remains the same 0.4 percentage points. We note that this differential has, historically, not been accurately picked up by country-specific inflation forecasts published by e.g. the ECB and IMF.

[27] Looking further back in time, 15 of the past 20 years of inflation data have also shown a higher inflation rate on Euro area HICP.

Based on this evidence there is a risk of a mis-match between the inflation figures used in our WACC estimation (Euro area HICP) the inflation figures used to index the Dublin Airport RAB (CSO CPI). Specifically, there is a risk that Dublin Airport is under-compensated for inflation without an adjustment.

Historical evidence points to an average difference between Euro area and Irish inflation rates of 0.4% per annum. This is a material wedge, and one that requires consideration when assessing what an appropriate WACC uplift is for Dublin Airport.

10.3 Uplifts to the WACC and point estimate

10.3.1 WACC uplifts

Overall, we find that there continues to be a strong case for an uplift to the WACC. In the previous charging decision, a WACC uplift of +0.50% was applied. An uplift of this magnitude continues to be supported by a combination of aiming-up arguments and inflation adjustment arguments.

Continuing with this value aids regulatory predictability and stability, as the 2027-2031 period continues to be a high investment period for Dublin Airport. And we also find an a WACC uplift of this magnitude is also broadly aligned with recent regulatory precedent; with the CRU's combined aiming-up and inflation adjustment totalling +0.50% on the WACC in the PR6 Final Determinations.[28]

Combining this with the other inputs set out in Table 17 above, our view on the real, pre-tax WACC that should be applied in the 2026 determination ranges from 5.78% to 6.44%. This is shown in the updated table below, which includes the WACC uplift.

Table 18 WACC estimate including uplift

Component	2022 decision	Frontier Low	Frontier High
Notional Gearing	**50%**	50%	50%
Risk-free rate	-0.45%	1.31%	1.83%
Total Market Return	6.25%	6.50%	6.90%
Equity Risk Premium	6.71%	5.19%	5.07%
Asset beta	0.60	0.61	0.67
Equity beta	1.13	1.22	1.34
Cost of equity	7.13%	**7.64%**	**8.62%**
Cost of embedded debt	-1.16%	-0.47%	-0.47%
Cost of new debt	1.29%	2.64%	2.90%

28 While we do not specifically place values against the components individually, we note that the CRU, in its determinations of electricity and gas companies, applied an inflation adjustment of +0.4% to the WACC, and then selected a point estimate +0.10% above the real, pre-tax WACC range mid-point; adding a combined +0.5% to the WACC.

Component	2022 decision	Frontier Low	Frontier High
Issuance and liquidity costs	0.05%	0.30%	0.30%
Proportion of new debt	27%	52%	52%
Cost of debt	**-0.45%**	**1.46%**	**1.59%**
Vanilla WACC	3.34%	**4.55%**	**5.11%**
Corporation tax	12.50%	16.10%	16.10%
Pre-tax cost of equity	**8.15%**	9.11%	10.28%
Pre-tax WACC (before uplifts)	**3.85%**	**5.28%**	**5.94%**
WACC uplifts	**0.50%**	**0.50%**	**0.50%**
Pre-tax WACC	**4.35%**	**5.78%**	**6.44%**

10.3.2 Point estimate

Dublin Airport has asked us to provide a WACC point estimate in this report. Having carefully considered the evidence used to create the pre-tax WACC range in the table above, our view is that the mid-point of the range could provide a suitable point estimate. This is a pre-tax WACC of 6.11%.

We consider the mid-point appropriate as aiming-up has already factored in some of the reasons often cited for selecting a figure from the top-half of the range.

Annex A– Profile of debt

The profile of debt is important for our estimation of the cost of debt. It enters into our calculations in two areas:

- For the cost of embedded debt, where we weight the interest cost of each instrument by the relative outstanding balance of that instrument in each year of the regulatory period.
- For the calculation of the proportion of new debt where we estimate the relative size of the stock of embedded and new debt for each year of the regulatory period.

In the table below, we summarise our estimation of the proportion of new debt. For each debt instrument, we estimate the average outstanding balance for each year of the regulatory period. This accounts for amortising loans which have a declining balance over each year, and debt that is either issued or matured part way through the year. We then estimate the total of embedded and new debt for that year.

To estimate the average proportion of new debt for the regulatory period, we estimate the proportion of new debt in each year and take an average across the 5 years which implies a proportion on new debt of 52%.

Table 19 Profile of debt for upcoming regulatory period

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]%

Source: Frontier analysis of daa's debt book and issuance plan

Note: Units thousands of Euros. Figures represent calendar year average and therefore may not reconcile exactly with figures provided elsewhere in the business plan submission where they are shown on a year end basis. We have not included in our assessment of embedded debt a EUR 288 million loan signed in July 2025 as this has not yet been drawn and the rate has not yet been confirmed.

Annex B - Additional Borrowing costs methodology

B.1 Issuance costs

For issuance costs, we have used information provided by daa on the issuance costs associated with each of their bond issuances. We then calculate the annualised uplift required to the annual yield to account for these issuance costs. Specifically, the annualised cost is the difference between the IRR on the bond cashflows prior to fees – the yield at issue – and the IRR of the bond cashflows with the relevant deduction of fees.

An example of this for the 2016 bond is set out in the table below. In the example shown, this difference is equal to 5bps per annum.

Table 20 2016 bond example of annualised cost

	Y0	Y1	Y2	…	Y11	Y12
Estimated proceeds (Y0) / Principal (Y12)	€400	£0.0	£0.0	…	£0.0	-€400
Coupon cost	€0.0	-€6.2	-€6.2	…	-€6.2	-€6.2
Cash flow	€400	-€6.2	-€6.2	…	-€6.2	-€406.2
IRR (yield at issue)	**1.55%**					
Issuance cost	€2.37	€0	€0		€0	€0
Cash flow incl. cost	€397.63	-€6.2	-€6.2	…	-€6.2	-€6.2
IRR incl. issuance cost	**1.61%**					
Annualised cost	**0.05%**					

Source: Frontier analysis of data provided by daa

Note: €m for monetary amounts, figures may not sum due to rounding, Y0 represents the year in which the debt is issued, in this case 2011, and Y12 represents the year in which the debt is repaid, in this case 2028

B.2 Cash liquidity costs

The method for estimating liquidity and carry costs related to cash holdings starts by considering the cash required relative the amount of debt required to finance capex. Holding cash imposes a cost to the business since the deposit rate that daa can receive on its cash deposits is lower than the interest rate payable on the debt (the coupon rate).

This approach therefore requires the following assumptions:

- The interest rate receivable on the surplus cash balances of 1.85%[29] (the cash deposit rate available to daa).
- A coupon rate of 4.00%, derived from the nominal iBoxx benchmark used to estimate the cost of new debt. For the purposes of this calculation we take a one-month average of the benchmark at our data cut-off.[30]
- The level of cash held by the regulated company over the upcoming period, provided by daa.
- The level of debt expected over the upcoming period, provided by daa.

We show this calculation in the table below.

Table 21 Cash liquidity calculations

	Step	2027	2028	2029	2030	2031
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Source: Frontier analysis of daa data

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As shown in the table above, the level of cash held by daa relative to the debt stock is highest in 2027 and expected to fall over the upcoming period. Given this, and that the implied liquidity costs at the start of the period are high relative to other regulatory precedent, we choose a value of 0.20% for the cash liquidity costs which is consistent with the estimates towards the end of the period. We note that this is broadly consistent with Ofgem's allowance of 17-19 bps for cash liquidity costs at RIIO-3 which uses a very similar estimation approach.

29 Based on information on daa's actual deposit rate using data provided by daa.

30 The one-month average of the iBoxx Non-Financials BBB 10Y+ index which we use at the top end of our cost of new debt range was 4.02%, whereas the average of iBoxx Non-Financials A and BBB indices used at the bottom end of our range was 3.98%. We use the midpoint for these calculations. We take a one-month average so that this is consistent with the data on daa's deposit rate.

B.3 RCF costs

We estimate liquidity costs based on daa's actual RCF costs relative to the stock of debt. This analysis assumes that the RCF remains undrawn, but accounts for the ongoing commitment fees as well as upfront fees associated with the RCF.

We summarise this calculation in the table below. We use actual data provided by daa on the RCF size and fees.

Table 22 Calculation of liquidity allowance

	Step	Value
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Source: Frontier analysis of daa data

Note: We estimate upfront fees as an annualised uplift to the cost of debt by dividing the incurred fees from daa's RCF set up in 2020 by the 7 year tenor to get an estimated annual cost. This is then divided by the debt stock to arrive at an uplift to the cost of debt. The amount of debt is taken as a snapshot of daa's debt book in May 2025.

Combining the estimates for cash liquidity and RCF costs in the tables above, we use a 25 bps estimate for liquidity costs and a 30 bps estimate for additional borrowing costs. This is applied as an uplift to the allowed return on debt.