

Response to the Draft Determination of Airport Charges at Dublin Airport 2020-2024



Report  
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## Appendices

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# 1. Introduction

## Background

- 1.1 Ryanair commissioned York Aviation in May 2019 to draw up a response to issues raised in the Draft Determination of Airport Charges at Dublin Airport for the period 2020-2024 as published by the Commission for Aviation Regulation (CAR).
- 1.2 In this report, we deal with a number of selected issues set out in the structure below. We have not attempted to deal with every issue within the Draft Determination in detail and have focussed on the key issues of interest to Ryanair.

## Structure of the Report

- 1.3 This report is structured as follows:
- Section 2 makes some observations on the CAR's general approach to regulation;
  - Section 3 makes some observations on the Passenger Forecasts and how these relate to the treatment of Incentives and the K Factor;
  - Section 4 considers issues relating to Operational Expenditure (Opex);
  - Section 5 considers issues relating to Commercial Revenues
  - Section 6 considers the Capital Programme and associated costs;
  - Section 7 considers Financial Viability
  - Section 8 considers the Cost of Capital;
  - Section 9 draws some overall Conclusions.

## 2. The Regulatory Approach

- 2.1 As the CAR has previously acknowledged, the requirement for economic regulation arises because Dublin Airport enjoys significant market power. The approach of a regulator should, therefore, be to ask the question: how would Dublin Airport be likely to behave if it were exposed to real competitive pressure? And if it is clearly not behaving in this way, what means are available to the regulator to put pressure on Dublin Airport to change its approach?
- 2.2 As we point out in this report, there is a track record of Dublin Airport failing in the past to behave as if it were in a competitive situation and it is still failing to do so. The areas that we examine in the remainder of this report show this to be the case, in particular in relation to key aspects of the operational costs (opex) and of the capital programme and costs (capex).
- 2.3 We examine in some detail the issues relating to financial viability and cost of capital, which is set too high and allows Dublin Airport to earn a greater return on its capital than is warranted. This return has to be paid for by users through higher airport charges than is justifiable.
- 2.4 We also examine the way in which the K Factor allows Dublin Airport to reclaim charges incentives in a manner that would not arise at an airport operating commercially in a competitive environment and is inconsistent with regulatory precedent.
- 2.5 All these issues argue for the CAR to take a robust regulatory approach in the forthcoming regulatory period.

### 3. Passenger Forecasts, Incentives and the ‘K’ Factor

- 3.1 At the outset, it is important to note that for the incentive properties of regulation to be effective, there must be consistency in the building blocks used to derive the price cap. It is self-evident that this means that the assumptions about opex, commercial revenues and capital investment required must be consistent with and derived from the forecasts that underpin the Determination. Otherwise, users will be paying for premature investment or excessive operational costs or, in the alternative, the airport will be unable to cover the costs inherent in handling growing demand.

#### Passenger Forecasts

- 3.2 We have reviewed the forecasts put forward by the CAR to underpin this Draft Determination. We note that these are derived using a GDP elasticity of 1.05, derived from econometric modelling. Whilst it is normal to find that GDP is the principal explanatory variable in relation to growth in air passenger demand at a national level, it is not the only factor of relevance and other factors, principally relating to cost, would normally be built into a forecasting relationship in terms of overall levels of demand.
- 3.3 We note that the CAR acknowledges that the elasticity it has estimated to GDP has varied over time – from 1 at the time of the 2009 Determination to 1.15 at the time of the 2014 Determination. This is almost certainly due to other factors being at play rather than the underlying relationship to GDP varying over time. In our experience, the elasticities underpinning the passenger forecasts should not vary significantly over time so long as the model is correctly specified and relevant factors included.
- 3.4 It is significant, for example, that passenger traffic at Dublin Airport grew much faster than might have been expected in the period up to 2009, when airport charges were relatively lower and prior to the introduction of the Air Travel Tax (applied in the period 2010-2014) (see **Figure 8.4**). The key point here is that the rate of demand growth at any airport is not independent of cost factors. These costs can be passed through to consumers (passengers) in two ways; firstly as a direct cost in the ticket price or, secondly, by impacting on airline profitability so causing the airline to restrict supply leading to higher prices overall. Whilst the first effect is commonly acknowledged, the second effect is often ignored by regulators as they fail to recognise that what appear to be relatively small changes in the cost of using an airport can translate into some services ceasing to be viable and a reduction in capacity offered, leading to higher prices to consumers than would otherwise be the case. Hence, the importance of including cost related variables within the forecasting equations.
- 3.5 That said, given that the CAR is recommending an initial reduction in price then a stable, in real terms, price trajectory for the quinquennium, the forecasts proposed to be adopted in the Determination seem reasonable, given the underlying forecasts of economic growth for Ireland. However, should there be an adjustment to the proposed price cap, it would be necessary to revisit the forecasts to check that the underlying assumptions are still valid, for example past precedent would suggest that higher airport charges might tilt the overall GDP elasticity closer to 1 if used as the sole explanatory variable. If the effect of a higher price (or indeed any introduction of environmental taxes) was to lower growth expectations, then this would need to be applied not only to the passenger denominator in the building blocks model but more fundamentally to the underlying assumptions about opex, commercial revenues and, most importantly, the timing and scale of capital investment. This is important in the context of daa calling for a higher price cap to fund its capital programme as there would inevitably be some effect on demand growth if higher prices were assumed, so deferring the need for at least some of capex. There would be a shift in the equilibrium, which would need to be modelled and taken into account in the final Determination.
- 3.6 Hence, we believe that the CAR needs to give more explicit consideration to the relationship between the cost of using an airport and the rate of demand growth in its future forecasts. Going forward, it would be preferable for the formula to recognise a feedback loop to the level of charges proposed as these do impact on the forecasts.



- 3.7 As noted above, it is important that the capex requirements are firmly related to the forecasts of demand growth. Hence, as we discuss in Section 6, the relevant consideration is the extent to which the capex proposed is needed to enable 37.8 mppa to be handled in the final year of the quinquennium and the extent to which investment needs to commence within the next quinquennium towards a target of realising capacity for 40 mppa during the next but one quinquennium.
- 3.8 Furthermore, in relation to capacity and capex, the forecasts need to be considered not just at the level of aggregate annual passenger demand but in terms of the 'shape' of the forecast; the individual components, such as aircraft movement growth, seasonality, the distribution of flights over the day. Whilst we have limited concerns with the overall passenger forecast put forward in the Draft Determination, we do have concerns about the associated aircraft movement forecast and the assumptions about bunching over the day provided to the CAR by Dublin Airport, particularly of arriving flights (see Section 6), which appear to be driving excessive capex requirements. Whilst Dublin Airport's Regulatory Proposition sets out, in general terms, its approach to preparing the passenger forecasts (notably including cost related variables but not airport charges), it provides insufficient detail to understand how the demand profile links to the assessment of capacity and capex required. This is of material concern as, at this level, errors in the forecasts could give rise to excessive capex and opex requirements to handle overstated demand peaks.

### 'K' Factor

- 3.9 There is also a critical relationship between getting the forecasts right and the treatment of incentives or discounts within the price cap.
- 3.10 At the outset, it is important to recognise the original intention of regulators in proposing the 'K' Factor adjustment mechanism. The 'K' factor was originally envisaged to address the circumstances where there was a genuine under or over recovery against the price cap for reasons beyond an airport operator's control. This could arise, for example, where yield dilution or yield concentration occurs due to changes in the fleet mix or composition of traffic resulting in a shift in the balance between landing fee income and passenger related income resulting in more or less income being earned on a per passenger basis.
- 3.11 However, at Dublin, the 'K' factor is being applied as a means to reimburse the Airport for the cost of the incentive payments/discounts (Incentive Scheme) that it has knowingly made with the intention of stimulating additional traffic growth. As applied, the extent of discounting was so substantial as to have the effect of incentivising growth in traffic well above the level forecast in the previous Determination. In turn, this led to the increase in capex required (the PACE projects) as well as additional opex and substantial growth in commercial revenues. Whilst the combined effects of these was deemed to be net beneficial, i.e. the benefits of increased passenger growth outweighed the cost of allowing these additional PACE projects into the RAB, and have been reflected in the opening price cap in the Draft Determination, there is still an important point of principle at stake.
- 3.12 Where 'K' factor adjustments are typically allowed for under-recovery due to published discounts and incentives that are available to all airlines on a strictly non-discriminatory basis, this does mean that airlines in aggregate, whether they have received discounts or not, are being effectively asked to pay them back. This means that the airport operator is not exposed to any risk at all as the costs of discounts are largely underwritten by the 'K' factor. It also cuts across the general principle of discounting of airport charges, which is that such discounting should only be undertaken when it can be demonstrated that users overall will benefit (by way of lower charges) as a result of the additional traffic.
- 3.13 Seeking to recover the cost of discounts from the generality of users is simply not how an airport operating in a competitive market would behave. Discounts offered would not be clawed back. Rather the airport would consider its pricing policy in relation to the long run beneficial effects of growth enabling it to deliver returns from scale against its fixed costs. It would not expect to be able to increase the prices to users to compensate for lost revenue but would expect to recoup additional income from commercial revenues, consistent with the Market Economy Operator principle. Indeed, this is what Dublin Airport has in fact achieved with the additional commercial revenue earned, the benefits of which it is able to retain into the next quinquennium under the roll forward mechanism. It is fundamentally unfair, therefore, that users should also pay for the cost of these discounts.

- 3.14 The way the 'K' factor is calculated also serves to compound the inequity of recovering the costs of discounts from users at a later date. The amount of the 'K' factor is calculated by reference to the extent of under-recovery 2 years in arrears on a per passenger basis. When applied at a later date, following growth in traffic, the effect is to see the airport over-recover in terms of the overall amount. Leaving aside the issues of principle in terms of the 'K' factor, this is fundamentally unfair and unbalanced in favour of the airport operator, which also gains from increased commercial revenues and, as has been the case at Dublin, earns a return on the RAB from additional capex investments made due to accelerated passenger growth.
- 3.15 We recognise that the CAR proposes to continue to limit the impact of the 'K' factor adjustment by restricting it to 5% of the price cap but this does not address the fundamental issue. The key point is that if the incentives or discounts serve to increase the volume above that allowed for in the Determination, this is a deliberate commercial decision by the airport operator; a decision which it should only take when it can demonstrate that it is net beneficial to users and/or the costs are fully covered by the uplift in commercial revenues earned. Any additional capex or opex costs should be taken into account in the calculation of whether the effect of the proposed discounts in terms of growth are net beneficial.
- 3.16 As currently structured, the 'K' factor has created a perverse incentive for Dublin Airport to heavily discount its charges, knowing that it can recoup the income from users at a later date, earn additional commercial income a large part of which it can retain for 5 years, and justify additional capex on which it can earn a return.

#### Regulatory Precedent

- 3.17 These issues have been considered previously by regulators, most notably in the 1997 and 2003 reviews of Manchester Airport (MA). Fundamentally, the issue of discounts and marketing incentives was considered in relation to the scale of discounts offered in the first instance and the extent to which the marketing incentives were embedded in the justification for the forecasts upon which the price cap determinations were made.
- 3.18 The problem was first recognised by the then Monopolies and Mergers Commission (MMC) in its 1997 Review of Manchester Airport. The definition of revenues to be considered in setting the price cap was discussed at paras. 2.36 and 2.37 of their report<sup>1</sup>. The MMC was clear in its recommendations:

*“The availability of introductory discounts for new services is referred to in MA’s terms and conditions as being at the company’s discretion but the amounts are not explicit: MA said that it was prepared to make those amounts explicit in future publications of its fees and charges. The value of such introductory discounts in 1996/7 was £1.33 million, and MA told us that, based on its own assumptions, it did not expect this sum to increase significantly. Other individually negotiated discounts off charges are treated as costs, and MA said, cannot be taken off income. These are therefore treated like sales promotion expenditure, as a cost, rather than a reduction of revenues. This was broadly confirmed by the CAA. It would, in our view, seem reasonable to allow published non-discretionary discounts, i.e. available equally to any airline meeting pre-determined conditions) to be netted off regulated income and to be regarded as an aspect of charging structure. It would be open to any airline to complain to the CAA if any such discounts were discriminatory. To reduce stated revenues by the amount of other, unpublished or discretionary, discounts, however, would reduce actual overall yield, and allow revenues to other users to be increased. Given the extent of under-recovery to date, the treatment of such discounts or rebates has not previously been an issue, but, in our view, there is a need for a more explicit provision that unpublished or discretionary discounts or rebates should not be regarded as reducing actual revenues for the purpose of the pricing formula.”*

- 3.19 It is important to note that in making this recommendation, the actual level of discounts that were under consideration amounted to only 1.2% of total aeronautical revenues. The MMC were clear that allowing a higher level of expenditure to be netted off would be unfair to other users (regardless of whether the discounts themselves were non-discriminatory or not) as it would be unfair to net off larger support amounts as it would have the effect of increasing charges overall under the 'K' factor approach. To put this into context, Dublin Airport’s most recent regulatory accounts shows the extent of discounts that could be recovered retrospectively from users is now over 10% of aeronautical revenue. To allow such an amount to be netted off and treated as under-recovery is excessive and effectively an abuse of the system for the reasons we have identified above.

<sup>1</sup> Extracts from the Monopolies and Mergers Commission Report are appended at **Appendix A**.



- 3.20 The MMC went onto consider the level of allowable incentives overall that it would be reasonable to take into account as an opex cost within the price cap decision. At para 2.58 of the same Report:

*“The additional expenditure comprised, first, a Sales Development Incentive Fund, primarily of volume discounts, and, secondly, a Strategic Route Development Fund providing further support for the development of ‘strategic’ new services, particularly long-haul or services to capital cities, which would assist the development of MA as a hub for scheduled services. The first, volume discounts, would only be given if additional traffic was generated in excess of 4 per cent a year, and would, MA believed, be profitable on the basis of commercial income generated; the discounts for strategic services would require two to three years in each case to break even.”*

- 3.21 It is notable that the structure and type of discounts covered under this arrangement are to a large extent mirrored in the discounts that Dublin Airport seeks to recover from users, whilst retaining the commercial revenue and other benefits. It should be noted that the £12 million allowance sought by MA was a similar proportion of aeronautical revenue as is the case with Dublin Airport’s published incentive scheme. Whilst the inclusion within opex has the effect of passing the cost to other users, the difference is that, in the Manchester case, the implications were fully accounted for and scrutinised within the price cap decision, taking into account the expected uplift in commercial revenue and any consequential capex implication. In contrast, by leaving the recovery to a ‘K’ factor adjustment allows Dublin Airport to game the system by offering deep incentives, knowing that it will be able to reclaim the income from users, retain the commercial revenue uplift and achieve a return on additional allowed capex.

- 3.22 The MMC went onto consider the linkage between the deliverability of the passenger forecasts underpinning the price cap decision and the level of expenditure required. At para. 2.16 of the Report, the MMC concluded that £6 million would be sufficient to enable the forecasts underpinning the rest of the price cap decision to be delivered:

*“We have therefore assumed a more limited increase from £5.4 million a year expenditure over the last 5 years, to £6 million a year (at 1996/7 prices), as sufficient to enable MA’s growth forecast to be met. It would still be open to MA to undertake additional expenditure, if it was profitable to do so: but it is, in our view, preferable for MA to bear the risks of such a strategy, rather than that the costs are included in the cost base on which charges are based, and hence be directly borne by users irrespective of the profitability of the strategy.”*

- 3.23 The issue arose again in the subsequent quinquennium, when the MMC again recommended that the amount of sales development expenditure allowed into opex again be limited to £6 million a year (see para. of the UK Civil Aviation Authority’s Decision: Economic Regulation of Manchester Airport 1 April 2003 – 31 March 2008<sup>2</sup> . Whilst the CAA subsequently, in making the final price cap decision, increased the amount of marketing incentives allowed as part of the opex, its reasoning at para. 5.18 of the Decision is informative:

*“The one area where the CAA differed from the Competition Commission was in respect of proposed expenditure on sales and development where the CAA made full allowance for the airport’s own projections rather than restrict the amount in the projections to £6 million per annum. Taking into account the fact that Manchester’s traffic forecasts were based on the higher level of spending on marketing support the CAA concluded that it should not limit the amount of marketing support allowed for in the financial projections that underlie the setting of the price cap.”*

<sup>2</sup> Relevant extracts from this Report are appended at **Appendix B**.

3.24 At para 5.22, the CAA went onto explain:

*“The CAA recognises that the Competition Commission’s use of Manchester’s Q3 expenditure of about £6 million per annum on sales development as a limit for Q4 was a judgement reflecting the Competition Commission’s views that no airline should be required to subsidise another, but that there were offsetting benefits to airlines that do not receive discounts from the creation of new routes and the effects of higher commercial revenues on airport charges in the long term. The CAA understands both of these views but its judgement is that the economic case for sales development expenditure at airports with spare capacity (such as Manchester with its second runway) is considerable until any gap between the incremental costs of new traffic and the incremental revenues from to users is eliminated. Whatever level of sales development expenditure is included in the calculation of the price cap Manchester will have the incentive to attract new traffic where the incremental revenues exceed the incremental costs and will bear the risks of such expenditure.”<sup>3</sup>*

- 3.25 The key point in both these cases is that these incentives were fully accounted for in the price cap decision, in terms of the effect on the passenger forecasts, the additional commercial income to be generated, the effects on other opex and on capex expenditure required. Both the costs and beneficial effects were accounted for in a manner so as to ensure that the effects on other users would be neutral, subject of course to the investment being, as stated, expected to be net beneficial over the period. The likelihood of this being the case was scrutinised in advance by the regulators.
- 3.26 By including allowable sales development expenditure within opex at a defined level, it ensures that the impact of this expenditure on volume growth, commercial revenues and capex is fully accounted for within the determination. It avoids the unforeseen effects that have emerged at Dublin and leaves excessive expenditure entirely at the risk of the airport operator within a quinquennium.

#### **Recommendation**

- 3.27 Fundamentally, there should be an obligation on Dublin Airport to demonstrate that users will be better off as a consequence of the additional passengers than if the incentives are not offered, i.e. they should be cost neutral to users. This would apply whether they are published discounts or agreed marketing expenditure as part of opex. Any payments over and above the level that Dublin Airport can demonstrate to be cost neutral (or better) for users should be at Dublin Airport’s risk, with no reimbursement through the ‘K’ factor. This would be consistent with the principle of the MEO test as it would ‘force’ Dublin Airport to consider whether the effect of the discounts would be net beneficial rather than the current system which is unfair in requiring users to pay in arrears for the costs of discounts regardless of the extent to which the Airport retains other benefits.
- 3.28 It is our firm recommendation that, if the ‘K’ factor is retained, it is retained solely for the purpose for which it was originally intended, i.e. to allow the Airport to recover unforeseen under-recovery, i.e. the ‘K’ factor adjustment should be applied to the gross aeronautical revenue earned, ignoring any discounts, rebates or incentive payments designed to encourage faster growth.
- 3.29 Where substantial incentives are required to encourage growth, these should preferably be accounted for as an expense and the level scrutinised, as was the case by the UK regulators, to ensure that the levels of expenditure were justified in terms of delivering the forecasts underpinning the determination and net beneficial to users. Otherwise, the expenditure should be considered inefficient and disallowed. It should be noted that any such incentive payments were still required to be non-discriminatory and not to distort competition in order to comply with general competition law. In the case of Manchester Airport, it was always understood that the Airport was free to grant more incentives, subject to non-discrimination principles, but this would be entirely at its own risk and not recoverable from users in general through the price cap mechanism.
- 3.30 In effect, the ability to recover such costs within the ‘K’ factor has the same effect as including it as an allowable cost but without the balancing factors of ensuring that the commercial revenue uplift is also included. Hence, allowing the ‘K’ factor to be used in this way must be fundamentally inequitable.

<sup>3</sup> This final point was in response to suggestions from some other airports that the CAA should absolutely cap the level of sales development expenditure that MA was allowed to undertake so as to avoid distortion of competition between airports.

## 4. Operational Expenditure (Opex)

- 4.1 In this section of the report, we highlight a number of issues relating to the CAR's proposed treatment of operational expenditure (opex).
- 4.2 The CAR commissioned CEPA/Taylor Airey to produce a report on opex at Dublin Airport, which we believe is a helpful and robust analysis in the main. We highlight a number of conclusions from this report in this section of our report. However, it appears that CAR has been reluctant in the Draft Determination to act on all the conclusions of the report and is seeking to take a softer approach to requiring Dublin Airport to improve its levels of efficiency. We do not believe this is appropriate or reasonable in the light of daa's historic failure to address the levels of opex inefficiency, specifically staff costs, at Dublin Airport.
- 4.3 It is notable that the consultants previously appointed by the CAR for the 2009 and 2014 Determinations (Indecon Jacobs in 2009 and Steer Davies Gleave (SDG) in 2014) both concluded that daa was operating below an efficient frontier of opex. The current CEPA/Taylor Airey report draws the same conclusion. This would suggest that over a period of around 10 years, and two regulatory reviews, Dublin Airport has failed to make significant headway in moving towards an efficient level of opex. This is not acceptable and does not replicate what would happen if the Airport was exposed to competition. If Dublin Airport had to compete with other airports to attract traffic, it would have been continuously looking to reduce its costs so as to enable it to offer lower prices to all airlines (as distinct from targeted incentives) and attract more traffic. That it has not yet done so is a clear indication that regulation is not yet mimicking the operation of a competitive market.
- 4.4 This argues for the CAR to take a more robust approach to the Airport's excessive opex, which users have been paying for over the last 10 years and are will continue to have to pay for unless the CAR takes a robust approach in the final Determination this time.
- 4.5 In the 2014 Draft Determination, the CAR chose the midpoint between the low and high ambition opex scenarios identified by SDG, although in the Final Determination the total opex allowance was €12m higher as a result of a number of adjustments moving it closer to a low ambition target. A comparison of the CAR's actual opex allowance with SDG's original higher ambition targets, suggests that users have paid around €48m more through airport charges in the last regulatory period than might be expected if Dublin Airport were operating in a truly competitive environment. This would argue strongly for some clawback of opex in Year 1 to reimburse users for the historic level of inefficiency.

### Staff Costs (General)

- 4.6 Staff costs are the major component of opex that continue to show inefficiency. The CEPA/Taylor Airey report notes that unit payroll costs have increased by 12% (real) between 2014 and 2017 and that there are many areas of staff inefficiency. This replicates the inefficiency findings from previous opex reports for the CAR and demonstrates clearly that action needs to be taken as a matter of urgency to address these issues. Although the findings of inefficiency are broad ranging, we focus in this report on three area in particular as requiring specific attention:
- Legacy (pre 2010) contracts;
  - Security staff costs;
  - Central staff costs.
- 4.7 The CAR states<sup>4</sup> that it is not its role to prescribe how daa allocates cost across the various areas of opex and that, if daa can beat a target in one area, this would compensate for failure to achieve targets in other areas. In principle, this would be a reasonable approach if Dublin Airport could show progress in achieving efficient levels of opex across the board. However, the Airport's consistent failure to reach efficiencies in staff costs over a long period of time and the continued excessive costs in some particular areas argue for the regulator to require Dublin Airport to take more focussed action.

<sup>4</sup> Draft Determination, paragraph 6.9

## Legacy (pre 2010) Contracts

- 4.8 In its report for the CAR in 2014, SDG noted the issues concerning the high costs of legacy staff contracts, and that the average cost of these contracts was 60% higher than new contracts<sup>5</sup>. SDG also noted the potential to address these high costs either ‘head on’ by negotiating lower rates or through outsourcing. SDG acknowledged the potential disruption from industrial relations disputes but said that this was “*not an insuperable barrier*”.
- 4.9 The tendering process for the operation of Terminal 2 (which daa won) was supposed to be a lever to drive cost efficiency through the whole operation. However, as SDG noted in their 2014 report and as CEPA/Taylor Airey note again in the current analysis, there remains a significant discrepancy between the costs of legacy staff and the costs of new staff recruited to the Terminal 2 operation.
- 4.10 In the period 1997 to 2001, Manchester Airport undertook a number of initiatives to reduce the payroll cost of new and existing staff to levels that were better matched to other airport benchmarks and local rates. The opening of Terminal 3 in September 1997 provided an opportunity for the Airport to staff the terminal with employees whose terms and conditions of employment resulted from market testing. The Airport subsequently set up a number of subsidiary company vehicles that provided contracted services and staff to the main Airport company at competitive rates. Further phases of cost reduction were introduced between 2001 and 2002, especially in the Security section where the costs of legacy staff contracts were addressed and, whilst this did lead to some industrial action, it also resulted in staff being paid at rates comparable with other airports. The MMC Report on Manchester Airport of December 2002 noted that through reducing employee numbers and the Security restructuring, its cost reduction strategy had, within the first half of 2002/03, led to cost savings of £12.7 million a year. The report notes that further staff cost savings were subsequently achieved as well.
- 4.11 Following recommendations made by the CAA in 2007, which deemed Manchester Airport to be operating competitively, the Government formally de-designated the Airport for price control purposes in October 2008.
- 4.12 In the case of Dublin, although the proportion of staff on legacy contracts appears to have declined since 2013, these still make up more than a third of total staff numbers. It is clear, therefore, that Dublin Airport has no specific strategy for addressing the high costs of legacy contracts and is simply relying on natural attrition over time. However, it could be many years into the future before all staff are being paid at a level that would be expected of an efficient operator in a competitive market situation. In the meantime, users are subsidising these uncompetitive rates through higher airport charges.
- 4.13 CEPA/Taylor Airey accept that across-the-board wage cuts would be difficult and could cause some disruption. However, the evidence from Manchester Airport would suggest that such issues can be managed where there is a clear strategy in place. It cannot be acceptable that Dublin Airport still has no real plan to address the issues more than 10 years after the problem was first acknowledged. Furthermore, CEPA/Taylor Airey also note that:
- “there has been insufficient pay restraint over the price control period and that wage increases for staff on older contracts in particular cannot be justified”.*<sup>6</sup>
- 4.14 Dublin Airport has recently agreed pay rises of between 2% and 4% to 2020 with the trade unions and this is despite these levels of wages already being well above the Irish average and Irish CPI being now just over 1%. So not only is Dublin Airport failing to address the issue of legacy contracts but is making the situation worse than it needs to be by awarding higher than average pay rises to staff that are already being paid at an uncompetitive level.
- 4.15 The SDG report estimated that outsourcing could save over €9 million per annum and reduce these costs by 40%, but the CAR rejected this approach in the last Determination and set a target that was midway between the high and low ambition targets (subsequently adjusted to allow for more opex in the Final Determination). It is notable that Dublin Airport has failed to meet even this relatively low ambition target in the last regulatory period.

<sup>5</sup> Steer Davies Gleave Opex Report 2014, page 24

<sup>6</sup> Ibid, page 29.

- 4.16 We understand that addressing the excessive costs of legacy contracts is likely to be challenging. However, when the monopoly provision of services, such as applies at Dublin Airport, continues over more than one regulatory period to sustain excessive costs that users are forced to pay for, the regulator should take much more robust action to incentivise the early achievement of an efficient level of opex.

### Security Staff

- 4.17 Over and above our general comments about Dublin Airport's failure to address its legacy staff cost issues, it is our view that costs in the Security section are not being properly managed by Dublin Airport for a number of reasons. CEPA/Taylor Airey note that Security staff costs have increased every year since 2012 and have grown by 52% in real terms over the period from 2014 to 2017<sup>7</sup> and that Full Time Equivalents (FTEs) employees have increased by 31%<sup>8</sup>.
- 4.18 There are 19 different rosters in Terminal 1. This might be understandable if such a level of difference were required to cover peaks and troughs efficiently. However, CEPA/Taylor Airey estimate that these rosters overprovide staff by 32%<sup>9</sup>. This is not acceptable.

### Sickness Absence in Security

- 4.19 A particularly shocking statistic is the sickness absence rate in the security section of 9%. The CEPA/Taylor Airey report does not indicate how such a level of absence is being covered, whether by being assumed within the design of the rosters themselves or by overtime. Either way, this level of sickness absence would be completely unacceptable for a company operating in a competitive environment, and there is no indication from this figure that Dublin Airport is pro-actively taking steps to reduce sickness absence to a more acceptable level. In our experience, the target of a 5.5% absence rate would still be relatively high for shift workers.
- 4.20 As an example of a comparable working environment, we would refer the CAR to the Monopolies & Mergers Commission report for the Q4 regulatory period (beginning April 2003) into Manchester Airport. The report notes a target to reduce absence levels in the Airport's Security Section from 6% to 4%<sup>10</sup>.
- 4.21 Another source of industry data is the annual Chartered Institute of Personnel and Development (CIPD) Survey<sup>11</sup>, which provides data on average levels of employee absence by industry, where the percentage absence rates do not exceed 6% for any industry sector (**Appendix D**).
- 4.22 Although comparable statistics in Ireland are difficult to find, the highest sickness absence rate for 2017 in the UK transport sector was just 3.3%<sup>12</sup>.
- 4.23 A sickness absence rate of 9% is further confirmation that Dublin Airport is not managing its staff effectively and efficiently.

### Centralised and Management Staff Costs

- 4.24 In their report for the 2014 Determination, SDG noted that management & support staff costs had increased significantly since 2010<sup>13</sup>. This trend continued through the period. CEPA/Taylor Airey note that in 2019 actual central staff costs were 27.9m in 2017 and are expected to be 55% higher than the determination in 2019<sup>14</sup>.

<sup>7</sup> Ibid, Page 35

<sup>8</sup> Ibid page 37.

<sup>9</sup> Ibid, page 39

<sup>10</sup> MMC Report into Manchester Airport paragraph 6.32 (extract attached at **Appendix C**)

<sup>11</sup> CIPD Health & Wellbeing at Work, Appendix 2, April 2019

<sup>12</sup> Office for National Statistics, July 2018.

<sup>13</sup> SDG, page 50.

<sup>14</sup> CEPA/Taylor Airey, page 52.

- 4.25 There are numerous examples given by CEPA/Taylor Airey of increased costs in administrative and management functions which have not been accompanied by any discernible increase in efficiency or productivity:

*"We...note that approximately a third of new maintenance staff have been hired into management and administrative roles rather than operational roles." (page 45)*

*"...it is less clear that the increase in (maintenance) management staff was necessary given we cannot see any evidence of a step change in the productivity of maintenance staff or quality of maintenance outputs." (page 47)*

*"The increase in commercial staff is difficult to justify solely on the basis of additional revenues generated" (page 54)*

*"...between 2014 and 2017 wages for SSC (Shared Services Centre) finance staff grew by 30% whilst wages for financial professionals in the wider Irish economy grew by only 7% over the same period." (page 54)*

*"The number of support staff has increased by 37 FTE between 2014 and 2017, with Dublin Airport expecting staff numbers to rise by an additional 23 FTE by 2019." (page 54)*

*"Staff in the terminal control centres and the airport control centre have increased though the current regulatory period and by 2019 are forecast to be 91% higher than the number of FTE employed in 2014." (page 63)*

- 4.26 CEPA/Taylor Airey conclude that Dublin Airport's central administrative and management functions are overstaffed and is hard to dissent from this view. This is yet another example where users are paying more than they should to use Dublin Airport due to daa's excessive staff costs.

### Other Staff Costs

- 4.27 Although we have focussed principally on security and centralised costs, we also note the inefficiencies and high level of staff costs highlighted by CEPA/Taylor Airey in other areas.

### Maintenance

- 4.28 We note that CEPA/Taylor Airey found that staff numbers had increased by 13% up to 2017, whereas the 2014 Determination target was a reduction of 4%. Whilst Dublin Airport claim that this increase is the result of the size and age of the asset base this would have been known and anticipated in the 2014 Determination and is not a change in circumstances, a third of the new maintenance staff are working in administrative or maintenance roles. Furthermore, CEPA/Taylor Airey found no evidence of improvements to quality or productivity resulting from the additional staff costs.

### Facilities and Cleaning

- 4.29 Numbers of staff in this section have increased every year of the current regulatory period, despite the previous Determination assuming no increases. We have already noted the 91% increase in staff numbers in the terminal control centre since 2014.
- 4.30 The rise in staff numbers and costs in this area is typical of Dublin Airport's approach in that there is no evidence of attempts to seek more efficient or alternative means of operation, but an immediate resort to increased staffing. It is unusual for airports to be providing cleaning services in house, and this is an area where we believe that significant savings could be made if these services were outsourced. The SDG report from 2013 estimated notional cost savings of €2.6m from outsourcing in this area. This is a key area that needs to be addressed, as it would be in an airport behaving competitively.

### Campus Services

- 4.31 Although no significant inefficiencies were found in this area, we note the relatively large increases in police costs, which given the acknowledged weak link between costs in this area and passenger numbers, seem surprising.



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### Information Technology

- 4.32 CEPA/Taylor Airey find that wage growth in this area is forecast to outstrip wage growth for IT workers across the Irish economy. They also find that the split between in house and outsourced activities has remained the same throughout the current and preceding regulatory periods, suggesting that no effort has been made by Dublin Airport to consider alternative means of procuring IT services. Again, this area would be a prime candidate for testing the market with outsourcing options.

### Retail

- 4.33 We note the relative inefficiency of retail staff in Terminal 1 when compared with Terminal 2 and whilst Dublin Airport ascribes this to different passenger demographics, there appears to be scope for efficiency improvement in this area, and the external benchmarking (based on retail FTEs per square metre of shop space) carried out by CEPA/Taylor Airey supports this.
- 4.34 Retail staff in Terminal 1 are also generating less revenue than their counterparts in Terminal 2 suggesting scope for productivity improvements, notwithstanding the differences in traffic mix.

### Airside Operations

- 4.35 As with other areas of staff opex, there has been a significant increase in staff costs in this area in contrast to the 2014 Determination, which assumed staff numbers would remain flat. By 2019, these costs are forecast to be 69% higher than in 2014, vastly outstripping the rise in aircraft movements. Once again, the bulk of this rise is seen in management posts.
- 4.36 The CAR should be wary of Dublin Airport adding staff cost in this area as a result of disruption caused by airside capital projects. Dublin Airport's instinctive reaction is likely to be to increase staff, whereas more productive use of existing staff would be a more effective approach.

### Car Parking

- 4.37 Once again, staff numbers and costs in this area have exceeded the 2014 Determination target. Although CEPA/Taylor Airey consider some of the additional numbers to be efficient, they also note that the increase in payroll costs is less justifiable and greater than those seen elsewhere in the economy.

### Other Non-Pay Staff Costs

- 4.38 The 2014 Determination assumed a reduction in costs in this area (which includes items such as training) and yet in 2017 outturn was €2.5m higher than the CAR 2014 forecast.
- 4.39 CEPA/Taylor Airey express surprise (and we would concur) at the scale of the increase in overhead costs, which is larger than the increase in FTEs over the same period. The expectation of an efficient company operating in a competitive market would be that economies of scale could be achieved.

### Non-Staff Opex

- 4.40 We note that the CEPA/Taylor Airey report does not find any significant inefficiencies in on-staff opex. Our focus in this report has, therefore, been on staff costs and we would urge the CAR to focus on the very significant inefficiencies in that area.

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### **'Glidepath' Approach**

- 4.41 It is apparent from the above that Dublin Airport is not doing enough to tackle staff costs and inefficiencies and that this situation is not new but has been allowed to drag on over the course of two Determination periods, with a risk that it will drag on further into the next period as well, at the expense of users. Dublin Airport has continued to increase costs despite the clear recognition in past Determinations that staff costs were and are excessive. It does not act as it would if it were in a genuinely competitive position and there is a pressing need now for the CAR to take robust action to address this with immediate effect from the start of the next quinquennium.
- 4.42 It is, hence, very disappointing to see that the CAR is proposing in the Draft Determination that there should be a 2 year 'glidepath' approach to give Dublin Airport yet more time to adjust to an efficient baseline. In addition, it is also proposing a 3% uplift to opex (of €5m) arising from commitments Dublin Airport may have made to staff in the immediate term. There can be no justification for this.
- 4.43 The CAR has been giving Dublin Airport time to adjust to an efficient baseline of opex for 10 years. It is unacceptable to defer further the requirement for daa to achieve efficient costs. Not only should the CAR stress that Dublin Airport needs to deliver efficient opex within the next quinquennium and set stringent and binding targets for achieving it but users should not be required any longer to pay the costs of excessive opex. The only exception should be where this is clearly and objectively justified to users as arising from factors beyond Dublin Airport's control and/or unforeseen traffic growth, other than that stimulated by Incentives where the operating costs implications should have been taken into account in the business case for offering the incentive. Furthermore, users should be compensated for the historic inefficiency that they have already paid for by way of a further immediate price reduction. We estimate that the amount that should be reimbursed to users is around €48 million.

### **Conclusion**

- 4.44 It is not acceptable to users for the CAR to carry on letting Dublin Airport 'off the hook' when it comes to assessing an efficient level of opex. The Airport has completely failed to meet its targets in this area over two regulatory periods and is clearly failing to act as it would if it were an efficient operator in a competitive market. Given that price control regulation of a monopoly with significant market power is supposed to act as an effective substitute for competition, the CAR would be failing in its statutory duty if it continues to allow Dublin Airport to fail to meet efficiency targets in relation to staff costs over multiple regulatory periods.
- 4.45 We therefore urge the CAR to hold to the targets implied by the Taylor/Airey report and not allow Dublin Airport even more time to reach an efficient frontier of cost through the glidepath approach that has been suggested. The costs of not meeting these targets should fall entirely to Dublin Airport's risk at this point in time.

## 5. Commercial Revenues

- 5.1 In the Draft Determination, the CAR notes that higher commercial revenues result in lower airport charges which in turn benefit passengers. It is important, therefore, that Dublin Airport is properly challenged to grow commercial revenues. The previous Determination failed to do this, by setting a low ambition target which seriously underestimated Dublin Airport's ability to increase this source of revenue. This had the effect of allowing charges to be set at a higher level than they should have been and for Dublin Airport to retain the benefit of outperforming these targets over a 5 year period. This is unfair to users.

### Historic Performance

- 5.2 The greater than anticipated growth in passenger numbers has led Dublin Airport to receive a windfall increase in commercial revenue. Table 7.2 of the Issues Paper shows that Dublin Airport earned €61.1m more (38%) commercial revenue than was forecast at the start of the period. The forecast also predicted commercial revenue per passenger would rise from €6.84 in 2014 to €6.94 in 2017, whereas actual outturn per passenger increased to €7.56 in 2017. This illustrates the extremely low ambition of the CAR's target in the last Determination.
- 5.3 Under the rolling schemes established at the last Determination, if Dublin Airport realises higher per passenger revenues from commercial sources that vary with passenger numbers (such as retail and car parking), it is assumed that this represents an out-performance. This may not necessarily be the case if the estimated revenue was set at too low a level in the first place. Higher per passenger revenue can result from the CAR's elasticities being set at too conservative a level leading, therefore, to targets being set that daa can easily exceed. This appears to have been what has happened in the last quinquennium, compounded by the effects of stimulated traffic growth which allowed daa to earn and retain substantial excess revenue.
- 5.4 The CAR distinguishes between 'per passenger' rolling schemes, which cover areas that vary with passenger numbers and 'gross' rolling schemes, where it is assumed that values do not vary with passengers. However, we are unclear why the CAR includes 'concessions' in the gross revenue category, rather than the 'per passenger' category, given that in paragraph 7.24 of the Draft Determination, the CAR says:

*"The revenue from commercial concessions responds to changes in passenger numbers"*

- 5.5 It is therefore preferable to include concessions in the 'per passenger' category. Dublin Airport should not be rewarded for exceeding a gross revenue target from concessions if this outperformance resulted simply from higher than expected passenger throughput, whether this represents a windfall gain or stimulated through the Incentive Scheme, rather than genuine improved performance. The combination of the higher per passenger earnings, compounded by passenger the growth driven by the Incentive Scheme, allowed daa to earn windfall profits, well ahead of the costs of the discounts, making it doubly unfair that users should be asked to reimburse the costs of these discounts through the 'K' factor as discussed in Section 3.

### Methodology

- 5.6 The CAR's methodology for estimating commercial revenue growth is based almost entirely on the application of elasticities derived from econometric modelling of historic trends. We noted in our response to the Issues Paper of April 2018 that, whilst this kind of modelling has value, it should not be considered in isolation of other measures.
- 5.7 Relying on econometric analysis of historic trends can also produce perverse results, as the CAR notes in the Draft Determination is the case with lounges, fast track and US Preclearance. This strongly suggest that the methodology needs to be adapted to reflect a broader range of commercial drivers with appropriate use of benchmarking and assessment of specific potential uplifts arising from daa's plans; a key point that we return to later in this section and in Section 6.

- 5.8 The CAR acknowledged in its Issues Paper of April 2018 that the elasticities it used previously were too conservative and resulted in a significant underestimation of the potential for commercial revenue. We, therefore, welcome the refinements to the modelling that the CAR has applied, which have resulted in generally higher elasticities than were used in the previous Determination.
- 5.9 However, this may not go far enough to ensure that appropriate targets are set. The CAR continues to reject the use of benchmarking<sup>15</sup>. Whilst we accept that benchmarks should be treated with caution, it should not be too difficult to find airports with broadly similar passenger profiles that would be indicative of Dublin's potential. For example, London Gatwick's 2017/18 car park revenue per passenger was £1.92, whereas Dublin's is €1.47 (or around £1.31). Manchester Airport's is much higher at £3.13. It is likely that there will be other areas where Dublin is not performing in line with its peers. These comparisons suggest that Dublin Airport has more scope in this area than has been projected and that targets set largely by extrapolation of past trends will always tend to under predict the scope for real increases in commercial revenue generation through innovation and through investment, as we discuss further below.
- 5.10 We reiterate our view that the use of elasticities derived from historic trends is, by its nature, backward looking and does not take into account the fact that the Dublin Airport could have been underperforming in the past. As a result, any underperformances of the past will be carried forward in the assumptions made about future projections. We note that the CAR has conceded this point<sup>16</sup> but states that over-performance will be included as well as under-performance. However, without some indicative benchmarking, it is impossible to know whether there has been under-performance or over-performance when compared with other airports.
- 5.11 The evidence would suggest that these extrapolation based targets are easy for daa to better. Hence, the CAR needs to set more stretching targets so as to ensure that users benefit from this improved commercial performance rather than daa being able to retain a large part of the upside that it regularly achieves. Hence, we would expect more appropriate stretching targets to be set within the Determination.

### Revenue Generating Schemes

- 5.12 We continue to believe that the CAR should examine more closely revenue generating schemes such as the 'Retail Refurbishments, Upgrades and New Developments' identified in the CIP to evaluate their real potential for increased commercial revenue generation and then hold the Airport to account if the additional revenues are not achieved. It should also be verified whether these schemes are necessary to maintain commercial revenue targets or whether they should in fact represent an uplift to revenue expectations.
- 5.13 However, the CAR has failed to take account of the potential uplifts in retail, commercial and car park revenues resulting from capex investment. The CAR states that uplifts are implied in the elasticities or that the proposed capex is required to protect the existing revenue stream rather than enhance it. We see no substantial evidence for this. The CAR also states<sup>17</sup> that Dublin Airport is proposing three investments that will "*contribute to maintain and increase commercial property revenues*", but no uplift in revenues has been allowed for in this area. This is inconsistent with allowing the capex into the RAB (see next section). It follows that if users are not to benefit from the uplift in revenue, they should not pay for the capex. The only revenue adjustment seems to be a downwards allowance for property displacements resulting from the north and south apron investments.

<sup>15</sup> Draft Determination, paragraph 7.59.

<sup>16</sup> Ibid, paragraph 7.55.

<sup>17</sup> Draft Determination, paragraph 7.31

- 5.14 The CAR needs to have particular regard to the interaction between commercial revenue and other building blocks, particularly in terms of ensuring that any additional opex or capex delivers the targeted increases in revenue. This is particularly important in the context that additional opex may be allowed into the Determination in expectation of a revenue uplift. The Determination will be unbalanced to the extent that some of the opex increase allowed relates to the costs of delivering the uplift in commercial revenues if the full uplift in commercial revenues is not also allowed. We discuss further, in the next section, the business case for some of the Commercial Projects which are clearly dependent on expected uplifts in commercial revenue. It is an important principle that such projects should only proceed if there is a business case for doing so, i.e. revenues exceed costs (both opex and capex). If the capex and opex are allowed, it follows that the revenue needs to be transparently included in the Determination, not least to enable the performance of the investment to be tracked and so that users can be sure that the project has delivered against the targets set.

### **US Pre-Clearance**

- 5.15 The CAR asks for views on whether revenue from this source should be treated as commercial revenue or as an airport charge. This is an optional service that Dublin Airport is not required to provide, albeit once provided, users have no choice but to use it. However, if this charge were removed from commercial revenue, airlines and passengers that do not use it would be required to pay for it through higher airport charges. We would see this as intrinsically unfair.

### **Conclusion**

- 5.16 Whilst the steps that the CAR has made to improve its elasticity based approach to forecasting future commercial revenues are appreciated, this does not go far enough. In particular, given the past track record of under-predicting daa's ability to generate additional commercial revenues, we consider it important that the elasticity based approach is strengthened by additional benchmarking analysis.
- 5.17 A particular area of concern lies in the failure to specifically account for the revenue uplifts that daa expects to deliver from its 'Commercial Projects' especially given that the business cases for the investment in capex depend on the achievement of the commercial revenue uplift. We return to this topic in the next section.

## 6. Capital Programme and Costs (Capex)

6.1 In this section, we consider Dublin Airport’s capital programme. We focus here on some headline issues and key projects and append a summary table (**Appendix E**) that comments on the specific proposals within the CIP. Our initial reaction to the CIP is that it is a ‘wishlist’ of all projects that Dublin Airport thinks it might want to undertake to enable a medium term passenger throughput of 40 mppa. However, the totality of and scale of the projects relative to what is actually required has not been justified sufficiently for the CAR to accept these projects into the RAB within the quinquennium.

6.2 In this section, we focus on the need for capital expenditure rather than the verification of the specific costs of individual projects as this was not addressed within the Steer Report:

*“The issue of whether the proposed projects are necessary and desired by users is not included in the scope”<sup>18</sup>*

In general, we support the CAR’s adoption of Steer’s recommendations for specific project by project capex cost efficiency savings, subject to consideration of contingencies and how these are treated overall, discussed further below.

6.3 However, we consider that the assessment of the need for particular projects is as important as whether the costs of the projects are efficient. We recognise that the CAR has been guided by the views of users as to the need for individual projects but, in some cases, these views were expressed without reference to final scopes and costs, largely based on the limited information on each project provided in the CIP. We recognise that the StageGate process is being proposed to address these issues to some degree and we consider later how this would fit within the overall capex determination process.

6.4 In the Draft Determination, the CAR proposes to allow €1.836 billion of capex into the RAB. This is a very large sum and significantly more within a quinquennium than the CAR allowed in 2007<sup>19</sup> to cover the cost of constructing Terminal 2 along with other associated works at the time. Allowing for CPI inflation since 2007 of 5.4%<sup>20</sup>, the proposed 2020-2014 capex allowance represents a proposed capital programme some 55% greater than allowed by the CAR in 2007, which included the full cost of Terminal 2. This is extraordinary in the context that a series of incremental capacity enhancements and improvements is proposed rather than the construction of an entirely new terminal. In these circumstances, we consider it beholden on the CAR to investigate fully the need for and scale of individual projects as well as whether the costs are efficient.

6.5 We now go onto consider the extent to which the need for these projects has been established either within the CIP document itself or in the work commissioned by the CAR.

<sup>18</sup> Steer, Dublin Airport CIP2020 Efficiency Assessment, Executive Summary.

<sup>19</sup> CP6/2007 Final Determination, Section 3, Table 1.

<sup>20</sup> CSO May 2019



## The Requirement for Additional Capacity

- 6.6 We recognise that the CAR commissioned Helios<sup>21</sup> to assess the capacity provided by the proposed capacity enhancement projects but we understand from discussion with the CAR that the question posed to Helios was would the proposed investments support a capacity of 40 mppa rather than whether the projects are required to meet demand over the next quinquennium or are efficiently sized to the requirements for 40 mppa or, indeed to achieve 37.8 mppa at the end of the quinquennium. Hence, the Helios reports do not address the question as to whether it would be efficient to allow these projects into the RAB within the quinquennium as it was not part of their brief. As we discuss later, over and above our project specific comments, we consider that the CAR should examine the phasing of projects relative to demand to ensure that it is not effectively encouraging inefficient and premature investment to provide a target capacity of 40 mppa. Such a capacity is likely not required until the next but one quinquennium so a phased delivery over a longer period would still deliver capacity in time to meet demand, as would be the case for an airport behaving competitively. Premature investment tends to be a feature of regulated airports whilst non-regulated airports acting competitively would seek to defer investment until the latest possible date so as to better match capacity to demand.
- 6.7 We note that Helios were given a draft 'busy day timetable' by Dublin Airport and that this formed the basis for their assessment. Unlike previous CIP's, the CIP2020-2024 does not contain information on the passenger and aircraft movement forecasts underpinning it so it is difficult to comment on the validity of the assumptions underpinning the input timetable, albeit some information on the overall passenger forecast is provided in Dublin Airport's Regulatory Proposition. Nonetheless, it appears to us that there are features of this 'busy day timetable' that may have led to an overstatement of the required capacity both on the airfield and in the terminals. We have compared this 40 mppa busy day timetable with the current OAG schedule for the first Friday in August 2019. It is our understanding that the Friday before the August Bank Holiday is typically one of the busiest days in the year at Dublin and that the Airport expects to handle of the order of 32 mppa in 2019. Hence, we are assuming this is equivalent to a 32 mppa 'busy day'.
- **Aircraft Movements** - We note that the timetable presented by Helios includes 25% more aircraft movements than scheduled for 2019, i.e. a 25% increase in annual passengers is converted to a 25% increase in aircraft movements. This does not appear reasonable given the fleet upgrading taking place, with Ryanair's new aircraft offering 6% more seats than the older generation aircraft they will replace, Aer Lingus expecting deliveries of A321 and A330 aircraft and the increasing use of Dublin by long haul airlines. Overall, we would expect the average numbers of passenger per aircraft to grow over the quinquennium and, hence, the number of aircraft movements over the year to grow less than the number of passengers. Similarly, as the Airport grows, we would expect the seasonal peakiness to reduce, particularly given the growth in long haul services which typically display different seasonal peaks to the traditional European sectors. Overall, the timetable provided by daa is likely to have overstated the requirements for aircraft stands and other airfield infrastructure at 40 mppa as it has not apparently factored in aircraft size growth nor a smoothing of the peaks within the year.
  - **Passengers** – Similarly, the 'busy day timetable' provided to Helios appears to show disproportionate growth in the number of 'busy hour' arriving and departing passengers. As with movements, the peakiness of traffic at an airport would be expected to reduce over time as an airport gets busier overall. This is because a larger airport will sustain higher frequencies of service than a smaller airport, resulting in a greater spread of passengers over the day, coupled with diversification of the route network which tends to result in the peaks and troughs of demand being better balanced over the day as well as over the year. This is not evident in the timetables given to Helios, which we have compared to the 2019 OAG schedule for the 'busy day', assuming all flights operate at 90% load factor. This is illustrated in **Figures 6.1 and 6.2** below:

<sup>21</sup> Helios, High-Level Performance Review of Airside Capacity Projects & High-Level Performance Review of Terminal Building Capacity Projects.

Figure 6.1 - BDTT Arriving Pax Profile Comparison

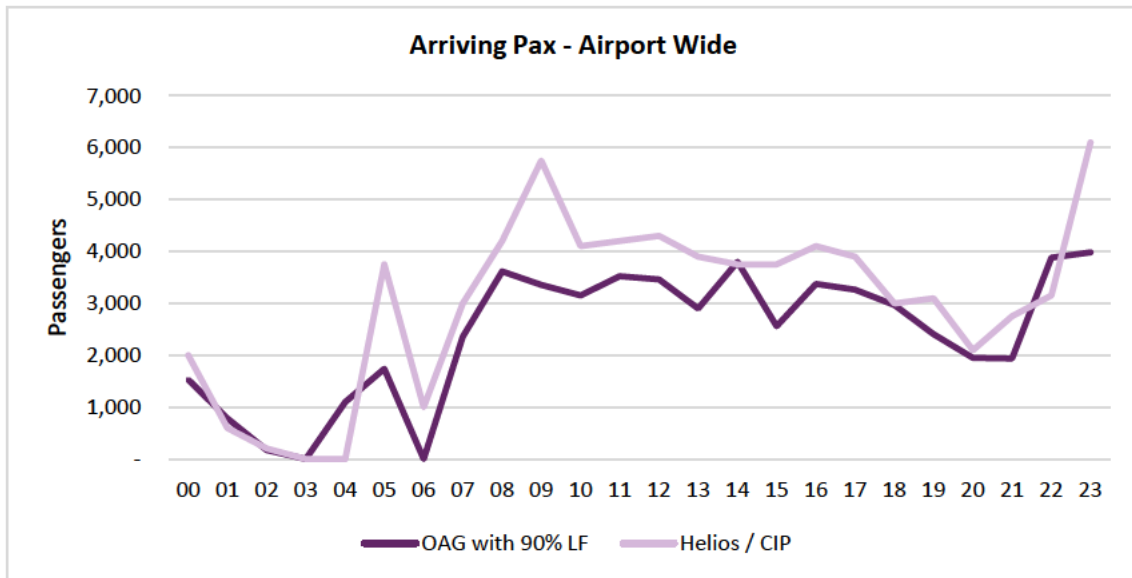
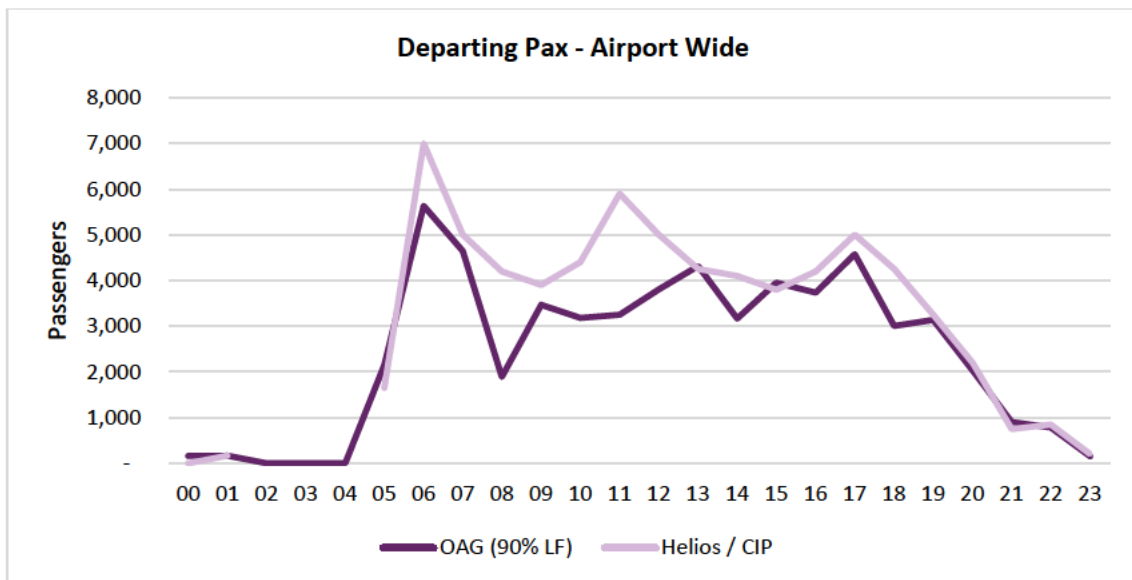


Figure 6.2 - BDTT Departing Pax Profile Comparison



- 6.8 Whilst the ‘busy hour’ for departing passengers increases by 24%, consistent with some marginal spreading of the peak relative to overall annual growth, the ‘busy hour’ for arriving passengers grows by 44%. This is unexplained and inconsistent with an airport seeking to ensure that it uses its capacity efficiently under a slot coordination regime. Furthermore, the growth in the late evening arrivals peak also appears inconsistent with the growth in the morning departure peak, both of which would be expected to be related to overnighting aircraft.
- 6.9 In overall terms, then, we do not believe that Helios have been provided with a reasonable future profile of demand to assess, even at 40 mppa, and this will have led to an overstatement of the required capacity to meet a given annual throughput. In particular, in the light of the discrepancies in the arrival profile, we would question the need to enhance the transfer facilities as a consequence of the Helios analysis<sup>22</sup>, which means that the additional projects for handling arriving transfer passengers (CIP.20.03.072), added following the Helios analysis, should be stripped back out of the programme.

<sup>22</sup> CP3/2019 Draft Determination, para. 9.41

## Deliverability and Phasing

- 6.10 Following on from this analysis, it is evident that several of the proposed projects deliver capacity for more than 40 mppa, begging the question as to whether it is legitimate to allow all of this capex into the RAB. There is insufficient information in the CIP document to us to assess which projects are strictly required for 40 mppa and the phasing when they are needed related to the build up of passenger growth. Nor is this transparent in the Helios work. If it is not possible to define with any precision the schemes actually required or the scale required within the quinquennium, at the very least there is an argument for spreading the remuneration of these capacity related projects and only allowing up to 37.8 mppa's worth pro-rata in this quinquennium, adopting a mechanism akin to the deferred and unitised depreciation adopted by the CAR in relation to the Terminal 2 investment.
- 6.11 A related point is planning risk. It is acknowledged that several of the schemes require planning permission and this will inevitably delay implementation. The Fingal Local Plan recognises the Government's Aviation Strategy and its objectives for Dublin Airport but refers to the Dublin Airport Local Area Plan, which was published in 2006 and extended until 2015. Although Fingal County Council has consulted<sup>23</sup> on an update to the Local Plan, the update has not yet been published. This previous Plan did not envisage growth of Dublin Airport above 30 mppa within the Eastern Campus; a passenger throughput it has now clearly exceeded. The limit was always envisaged as being related to overall surface access to the Airport. The need for surface access improvements is highlighted on the Fingal County Council website as required to enable growth above 32 mppa. It is unclear the extent to which delivery of these surface access improvements is dependent, e.g. improved road and metrolink connections, on investment by the public sector as there are no specific proposals identifiable within the CIP that seek to overcome any such external surface access constraints. To the extent that approval to schemes necessary to achieve growth above 32 mppa is dependent on such external investments being made by others, the timing of such investments cannot be certain and it is unclear whether Fingal County Council, or indeed An Bord Pleanála, would grant planning approval for specific schemes necessary to handle more than 32 mppa until such external surface transport works are committed. In the light of this, there is, at the very least, a material planning risk that schemes intended to deliver capacity up to 40 mppa would not receive planning approval or approval could be materially delayed if surface access concerns have not been overcome. Again, this argues for a cautious approach to assuming that all projects will proceed and be completed within the quinquennium.
- 6.12 In any event, it is doubtful that Dublin Airport can actually spend the total amount projected in the period in a managed fashion and without major disruption to the operations. As we have pointed out, the proposed programme is substantially more than was spent building T2 at the peak expenditure rate. Hence, there is a strong likelihood of potential slippage and this needs to be reflected in the amount of capex allowed into the RAB to reflect the likely level of spending rather than the maximum spend as currently included.

## Capacity Related Projects

- 6.13 It is beyond the scope of this report to consider the requirements for each and every project in detail. We have used our interpretation of the work undertaken by Helios to inform our assessment of where there is scope for reductions in the capex allowed. This is independent of our consideration, later in this section, of the StageGate process as a means for overcoming the current shortcomings in the assessment of need for the projects as presented by Dublin Airport and to the related consideration of the treatment of contingency.

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<sup>23</sup> <https://consult.fingal.ie/en/consultation/dublin-airport-strategic-issues-paper/chapter/5-current-and-future-capacity-constraints>.

## Airfield

6.14 Whilst we recognise that the main passenger aircraft aprons at Dublin Airport are heavily used overnight currently with, we estimate, demand for 111 Code C equivalent passenger aircraft stands in the early morning period in Summer 2019, there appears to be some spare capacity available, with ACL showing 128 Code B or C equivalent stands available (excluding general aviation stands)<sup>24</sup>. We understand that 92 stands are available for passenger aircraft turnarounds and the remaining aircraft require to be towed on and off stand. There is also demand for cargo aircraft parking. In overall terms, however, this implies that Dublin Airport achieves a ratio of 288,000 passengers per stand per annum, excluding cargo and general aviation operations. This is somewhat less than achieved at Gatwick with stand utilisation at around 314,000 passengers per stand per annum and less than achieved at a largely short haul low cost airport such as Luton, which achieved around 415,000 passengers per available stand per annum in 2018. Allowing for growth in the average number of passengers per aircraft, we would expect the stand utilisation factor at Dublin to increase over time. Hence, rather than the 156 Code C equivalent stands in future<sup>25</sup>, a more realistic number for the end of the next quinquennium would be 126-131 passenger aircraft stands plus allowance for cargo and business aviation, or 133-138 at 40 mppa. In other words, the proposed additional aircraft apron provision within the CIP is excessive in overall terms, particularly in relation to the provision of additional remote aprons.

6.15 A number of new apron capacity projects are included within the CIP, including:

### **CIP.20.03.036 - North Apron Development – Pier 1 Extension (Module 1) & Apron 5H PBZ**

6.16 Ryanair supports this proposal as providing valuable additional contact stand capacity to serve the needs of its operation. Indeed, Ryanair also believes<sup>26</sup> there is a case for constructing the Module 2 building within the quinquennium to ensure adequate levels of passenger service by maximising the number of gates that are contact gates. This should be added into the CIP.

### **CIP.20.03.031 - South Apron Expansion (Remote Stands, Taxiway and Apron)**

6.17 This facility provides the equivalent to the North Apron for Terminal 2 passengers. Ryanair has previously expressed its support for this project in so far as it relates to meeting the specific needs of T2 carriers.

### **CIP.20.03.054 - New Remote Apron 5M - 17 NBEs**

6.18 These additional 17 stands are noted in the CIP as being overflow stands for business aviation and cargo aircraft. No justification is provided within the CIP for the timing when these stands would be required. Given our analysis of the overall requirements for no more than 138 passenger aircraft stands to handle 40 mppa or a maximum of 131 stands for 37.8 mppa, we consider this provision to be premature and that the capex should not be allowed until the need is proved. This could form part of the StageGate process and, as we go onto discuss, not allowed into the RAB until the need for the investment is agreed.

### **CIP.20.03.051B - West Apron Vehicle Underpass - Pier 3 Option**

6.19 Ryanair does not support the provision of this Underpass. In our view, it would be premature to construct the underpass until there is demonstrable evidence that there is substantial use of apron areas in the West for handling of 'live' passenger carrying aircraft. In the light of our comments about the timing when the additional apron areas to the west of RWY 16/34 would be required for operational aircraft, we believe that the construction of this tunnel would be premature and further consideration of the timing of the requirement needs to be given as part of the StageGate process and so not allowed at this stage.

6.20 Our comments on other airfield related projects are largely addressed under the Maintenance Capex heading below.

<sup>24</sup> Airport Coordination Ltd, Coordination Parameters for Dublin Airport for IATA Summer Season 2019.

<sup>25</sup> Helios, High-Level Performance Review of Airside Capacity Projects, page 37.

<sup>26</sup> Letter from Ryanair to daa 20<sup>th</sup> December 2018.

## Terminal

- 6.21 In terms of the proposed capacity improvements to the two terminals, Ryanair has expressed its general support for the principle of the improvements. However, we are concerned that the analysis by Helios shows that most of the projects are oversized (and hence too expensive) relative to even 40 mppa requirements, leaving aside the requirement only to be able to accommodate 37.8 mppa by the end of the quinquennium, not least as the ‘busy day timetable’ that formed the basis of Helios’s assessment appears to have been overstated in terms of its peaks to some degree. It follows that there should be scope for reducing the scale of the investment but still delivering a more than adequate level of service for up to 40 mppa. Indeed, if the capacity of the Eastern Campus at Dublin Airport is ultimately to be limited to 40 mppa<sup>27</sup> before the development of additional passenger facilities in the west, it is reasonable to argue that investment of the scale currently proposed in the CIP would be nugatory.
- 6.22 We note that Helios have set out to assess the capacity provided if all of the CIP schemes as originally set out are implemented in full. We have not sought to verify the specific modelling parameters used by Helios at this stage. Helios set out to verify the adequacy of key elements of each terminal to accommodate the schedule that it was provided with, based on the IATA Airport Development Reference Manual v.10 (ADRM)<sup>28</sup>. The present graphs that show the modelled throughput facility by facility relative to the relevant space or processing standards defined in the ADRM. These are illustrated in the Helios Report, with standards defined as ‘Overdesign’, ‘Optimum’, ‘Suboptimum’ ‘Underprovided’. It is normal practice to design airport facilities to meet the ‘Optimum’ standard. In exceptional circumstances, and subject to the agreement with users, it may be reasonable to overdesign some facilities where there is a particular need for high quality facilities, e.g. for Premium passengers who are willing to pay extra for their use, or to accept suboptimal conditions for short periods of time (e.g. at the time of the absolute peak demand) or pending completion of new developments. We are not aware that any such discussions have taken place in relation to Dublin Airport and, hence, we would expect facilities to be designed to meet ‘Optimum’ service standards for the majority of time, with some limited periods operating at ‘Suboptimum’ conditions in the absolute peak.
- 6.23 It is of considerable concern, therefore, that virtually all of the facilities assessed by Helios at 40 mppa throughput (which may of itself have been overstated) are shown as operating in the lower part of the ‘blue’ ‘Overdesign’ range for the majority of the day (i.e. substantially overdesigned), with only very short periods of time showing incursions into the ‘Optimum’ or ‘Suboptimum’ range. No facilities are shown in the ‘Underprovided category’. To the extent that many of the facilities are shown as operating solely or mainly within the ‘Overdesign’ category, there is a strong case for these facilities to be reduced in scope within the CIP and the costs reduced accordingly. The need for de-scoping covers the following areas of capacity assessment as analysed by Helios:
- Terminals 1 and 2 Check-in space
  - Terminals 1 and 2 Boarding Pass Scan
  - Terminals 1 and 2 Security Screening
  - Transfer facilities
  - Terminal 1 Immigration
  - Terminals 1 and 2 Baggage Reclaim
  - Piers 1, 2, 4 and 5,
  - South Boarding Zone
  - Terminals 1 and 2 Departure Lounges

Indeed, the justification for the scale of expansion proposed to other facilities, e.g. US Pre-clearance, Pier 3 Immigration and Terminal 2 Immigration is marginal based on the analysis presented.

- 6.24 It is recognised that it is not straightforward to relate the identified over-design as assessed by Helios to specific projects but we have indicated below some specific projects that could potentially be reduced in scope to ensure that users are not paying for facilities to be overdesigned:

<sup>27</sup> Subject to confirmation that Final County has accepted this as an acceptable throughput having regard to surface access concerns previously expressed in relation to the ability to accommodate more than 30 mppa through the Eastern Campus.

<sup>28</sup> Version 11 of the Manual is now available and does include some changes as to how standards are measured.

**CIP.20.03.012 – Terminal 1 Central Search – Relocation to Mezzanine Level**

- 6.25 Whilst this project is accepted as needed in order to make the T1 function better for passengers and reduce unnecessary lengthy walking distance, the scale of the project needs to be reviewed in the light of the apparent overdesign relative to throughput.

**CIP.20.03.013 – Terminal 1 Departure Lounge Re-orientation and Rehabilitation**

- 6.26 Although this is presented as a capacity project, the Helios analysis would give rise to a question regarding its scale relative to throughput. If it is intended as a commercial project, we note that the expected revenue uplift is cited in the CIP as €0.9 million (we presume per annum) in line with passenger growth but with an increased opex burden of €3 million per annum for additional retail staff and other costs related to the enlarged retail area. It would appear that this project has been misclassified and, in any event, would not appear to be efficient investment in terms of the retail offer given the costs and revenues cited. As such there is no business case for this project and it should be omitted. To the extent that some minor works are required to this area associated with the re-positioning of security, these should be included within CIP.20.03.012 above.

**CIP.20.03.015 – Terminal 1 Baggage Reclaim and Alterations**

- 6.27 Based on the Helios analysis, it would appear that this project may have been over-scoped, justifying the project's inclusion in the StageGate process so that the scope and costs can be validated before it is allowed into the RAB.

**CIP.20.03.018 – Terminal 1 – Immigration Hall**

- 6.28 Based on the Helios analysis, it would appear that this project may have been over-scoped. We are concerned at its inclusion as a 'Flexible' project as this would allow Dublin Airport to readjust the scope downwards to better meet demand but use the money for another project which may or may not have been justified. Either the scope should be reduced now or the project included within the StageGate process.

**CIP.20.03.20 – Terminal 2 Check-in Area Optimisation****CIP.20.03.20 – Terminal 2 Central Search Area Expansion**

- 6.29 Based on the Helios analysis, it would appear that these projects may have been over-scoped. We are concerned at their inclusion as 'Flexible' projects as this would allow Dublin Airport to readjust the scope downwards to better meet demand but use the money for another project which may or may not have been justified. Either the scope should be reduced now or the project included within the StageGate process.

**CIP.20.03.034 – Pier 3 Immigration**

- 6.30 Based on the Helios analysis, it would appear that this project may have been over-scoped. We are concerned at its inclusion as a 'Flexible' project as this would allow Dublin Airport to readjust the scope downwards to better meet demand but use the money for another project which may or may not have been justified. Either the scope should be reduced now or the project included within the StageGate process.

**CIP.20.03.052 – Surface Water Environmental Compliance**

- 6.31 It is unclear why this should be a capacity project and its inclusion would need to be justified through the StageGate Process.



6.32 It is beyond the scope of this report to assess the specific extent to which the scope or costs could be reduced, but an overall reduction in the scale of capex required for capacity related works of the order of 16% (around €180 million<sup>29</sup>) would seem justified based on the evidence provided that such works are actually needed within or shortly following the quinquennium. This assumes a 20% reduction in the cost of the identified terminal related schemes, allowance within the T1 Security Project for the necessary re-orientation of the Departure Lounge, the omission of the new remote stands and underpass as premature but with the inclusion of Module 2 of the North Apron extension. To the extent that these projects fall within the StageGate process, this would afford the opportunity to ensure that all projects have been ‘right sized’ to the requirements and avoid the need for arbitrary reductions in the final capex allowances at this stage. Our initial assessment may well understate the scope to realise additional savings through a properly applied StageGate process, as we discuss below, as we have not considered case by case the extent to which each and every project may have been over-scoped within this report.

### Maintenance/Replacement Capex

- 6.33 Ryanair has expressed a concern about the principle of paying to maintain or replace assets that it has already paid for through the RAB. However, we recognise that the RAB is reduced over time, in line with the return of the RAB (depreciation), on the basis that assets will be renewed as required. With this in mind, we have commented below on some aspects of this programme as, in general, we consider the maintenance capex to be over-scoped.
- 6.34 We deal in this section with both Asset Care categories, particularly in relation to the civil and building works and with the IT and Security related expenditure as, by and large, the items included have the characteristics of Maintenance/Replacement capex as typically defined.
- 6.35 To put the overall value of the proposed maintenance capex projects into some context, we have compiled figures for 3 UK airports capital maintenance expenditure in **Table 6.1** below shown in comparison to daa’s forecast spend for the next quinquennium.

**Table 6.1 - Maintenance Capex/mppa Comparison**

Airport	mppa	Maintenance Capex/annum	Expenditure £m/mppa
Luton	16.8	£12.8	0.77
Manchester Airports Group	61.2	£95.0	1.55
Gatwick <sup>30</sup>	50.3	£78.8	1.57
Dublin <sup>31</sup>	35	€406.0	2.06

- 6.36 On this basis, we consider that the scale of works and expenditure proposed by Dublin Airport to be excessive and beyond what users would reasonably expect to be expended within a quinquennium. To the extent that additional maintenance expenditure is claimed to be required, this would indicate that historic levels of maintenance, which users have paid for, have been ineffective and inefficient. Users should not be asked to pay on an ongoing basis for this inefficiency.
- 6.37 We now comment below on some specific projects which we consider may have been over-scoped:

<sup>29</sup> This assumes contingencies are left untouched.

<sup>30</sup> The Gatwick CIP average forecast mppa and maintenance capex between 2019 and 2023.

<sup>31</sup> The Dublin CIP average forecast mppa and maintenance capex between 2020 and 2024 (maintenance capex costs include asset care, IT and security in line comparator airports).

## Asset Care – Civil, Structural and Fleet

### *CIP.20.01.002 – Apron Rehabilitation Programme*

- 6.38 The CIP states in Appendix A that the area of apron pavement requiring rehabilitation is circa 66,000m<sup>2</sup>. Analysis of the PCI section scoring map provided in the CIP shows that the areas highlighted for rehabilitation total just over 100,000m<sup>2</sup>. Therefore, the proposed area for rehabilitation is around 60% of the total ‘degraded’ and ‘unsatisfactory’ areas shown in orange, pink and red.
- 6.39 To understand the basis of PCI<sup>32</sup> scoring, it is helpful to understand that the delineated ‘sections’ shown on the CIP PCI extract are classified as areas of contiguous pavement having a uniform construction, maintenance and usage history. These ‘sections’ are sub-divided in ‘samples’, areas of either 20 concrete slabs or around 450m<sup>2</sup> of asphalt. Within these ‘samples’ the individual defects are recorded. The classification of the defect affects the overall ‘sample’ score and the combined scores of all the ‘samples’ in the ‘section’ affects the ‘section’ score. As such, it can take only one completely failed concrete bay (circa 36m<sup>2</sup>) within a ‘sample’ to give it a ‘unsatisfactory’ score. This can then have a knock-on effect on the overall ‘section’ rating. Ultimately, one ‘degraded’ or ‘unsatisfactory’ ‘section’ may only have a small overall area of pavement that needs rehabilitation or reconstruction.
- 6.40 The adoption of a an assumption that rehabilitation is needed for 60% or more of the overall ‘section’ area shown as ‘degraded’ or worse is, therefore, potentially significantly overcompensating for the actual area of pavement that needs treatment of some kind. The proposed area, in the context of the overall apron, suggests very large areas are going to be treated. To further put this into context, 66,000m<sup>2</sup> has been calculated as circa 12.5-15% of the total commercial apron and apron taxiway pavement east of Runway 16/34 to be replaced over 5 years.
- 6.41 Furthermore, what is not clear from either CIP or the Steer Efficiency Assessment is on what basis has the rate for construction costs been calculated? The Steer report suggests a rate of €347/m<sup>2</sup> has been used which appears to imply full reconstruction or each bay. Steer do identify that the specification proposed by daa is ‘very high level’ which again points to daa gold plating their projects, but does not appear to have adjusted the costs for this project downward accordingly. This adjustment should be made.
- 6.42 The reality is that across the full apron area there will be a requirement for a combination of spot repairs, single bay replacements, asphalt overlays and larger areas of full or partial reconstruction. The proposal, however, suggests that the project is set out on the assumption that the full 66,000+m<sup>2</sup> will get full reconstruction. This is both inefficient and unnecessary, resulting in an excessive capex cost allowance. In a degraded section, we would expect to see between 15-25% of the total pavement area to either need some form of rehabilitation not 60% and this could vary from patch repairs to possible full reconstruction if it was within the wheel track area. We believe that the cost allowance for Apron rehabilitation can be substantially reduced.

### *CIP.20.01.003 – Airfield Taxiway Rehabilitation Programme*

- 6.43 Assessment of the taxiway rehabilitation area proposed in the CIP appears to correlate to the areas shown on the PCI section plan inset in the report. This assumes that approximately the central 3 bays (or middle third) along a taxiway length requires an asphalt overlay, which reflects the observed historical process of rehabilitation of taxiways at Dublin Airport and is in line with industry practices. However, the CIP states that even though they would expect to apply overlays only, they have costed the works on the basis of doing a full reconstruction which we would estimate to be circa 3 times the cost in comparison to a 100-150mm asphalt overlay. Once again, this highlights daa’s ‘gold plating’ approach to their costings and the capex allowance can be reduced accordingly.

<sup>32</sup> Pavement Condition Index (PCI)—a numerical rating of the pavement condition that ranges from 0 to 100 as prescribed by ASTM International

***CIP.20.01.004 – Apron Road Rehabilitation Programme***

- 6.44 Based on the stated age (60 years) of the roadway pavements, we consider their rehabilitation to be valid and necessary. We would agree with the Steer Report, however, regarding the need for full reconstruction which we do not believe is necessary and would be highly disruptive. Pavement overlay would be cheaper, quicker and less impactful on operations. Asphalt overlays would normally be more effective as a rehabilitation method and no information has been provided to justify why full reconstruction is required. Costing on the full reconstruction basis whilst also applying a contingency of 17% once again seems excessive and costs can be reduced substantially.

***CIP.20.01.006 – Airfield Southern Perimeter Road Upgrade Programme***

- 6.45 This project again bases its costs on full reconstruction of 500mm of pavement over the total scope area of 8,900m<sup>2</sup> but also states in its underpinning assumptions that a structural bituminous overlay along the full length will avoid the need for full reconstruction. We would agree that overlay should be used to avoid full reconstruction but would echo the Steer Report suggestion that positive drainage needs to be considered to reduce the chances of rapid degradation in the future.

***CIP.20.01.008 – Runway Approach Lighting Mast Improvement Programme***

- 6.46 This project seeks to replace all of the runway approach lights on both Runway 10/28 and 16/34. The masts are said to be effectively life expired due to their age, not frangible and in the light of concerns they will not support newly proposed LED fittings.
- 6.47 Firstly, we do not understand that the IAA have explicitly requested replacement of these struts immediately as EASA only brought in the frangibility compliance criteria only in 2014, with its initial issue of the Aerodrome Design Manual, and airports would normally be afforded time to achieve compliance. Clearly, if a piece of infrastructure has become life expired or is due to be changed in a significant way then the IAA would certainly expect the operator to make it compliant. However, we would argue that these lighting structures are not life expired as nothing is stated by daa in relation to their condition. However, given that the lighting masts for Runway 10/28 are 31 years old, and because this runway is used for c.98% of movements, we would consider that replacement within the next 7 years is sensible but this means that the replacement programme can be extended beyond the next quinquennium.
- 6.48 As Runway 16/34 is only currently used for landings during crosswind conditions, which equate to c.2% of all movements, and because its associated approach lighting masts are between 15 and 25 years old, we would question why they should be replaced in the next quinquennium if at all. While we understand that the new Northern Runway will not replace Runway 16/34 in terms of cross wind function, we would suggest that any costs associated with non-critical works is delayed until the Northern Runway is operational and the actual need for RWY 16/34 confirmed. We believe the main benefit of Runway 16/34 currently is its ability to allow departures in the peak hours simultaneously with Runway 10/28. Such operations will no longer be required when the Northern Runway is operational, leaving RWY 16/34 for only very limited cross wind use by small aircraft. We would, hence, strongly question the need to retain RWY 16/34 after that time due to the minimal benefit it will provide for the ongoing investment required for its operational upkeep. These costs are not required.

***CIP.20.01.009 – Aerodrome Ground Lighting (AGL) Improvement Programme***

- 6.49 We agree with the scope of this project but would question the need to replace the fittings associated with Runway 16/34 as proposed in relation to our comment made above on project CIP.20.01.008. No detail is given regarding the scale of this element of the project but we nevertheless recommend their exclusion on the basis that Runway 16/34 will have minimal operational requirement as a runway after the Northern Runway becomes live.

***CIP.20.01.018 – Campus Buildings Critical Maintenance***

- 6.50 The need to maintain the property portfolio is understood but there is no information provided in the CIP regarding the detail of works proposed for the row of buildings to the south of the main terminal access road and east of Terminal 2. These buildings adjacent to the South Apron will have to be demolished to make way for the proposed South Apron expansion works and new Pier 5. We, therefore, question the need for any costs to be incurred relating to maintenance of these buildings. The costs under this heading can be reduced accordingly.

***CIP.20.01.020 – Terminal 1 Façade, Roof and Spirals***

- 6.51 In principle, we understand the need to maintain the Terminal 1 building infrastructure. However, even taking into account the information provided in the CIP, there is no justification provided for why maintenance works to the exterior of the building would cost €25m+. To put this into context this equates to just over 25% of Manchester Airport Group's total reported 2018 capital maintenance expenditure across 3 airports. Further detailed information on the project is needed to understand why the maintenance costs would be so high and assess whether there are more cost-effective alternatives. Prima facie, these costs should be capable of substantial reduction.

***CIP.20.01.024***

- 6.52 We note the need to spend €1.2 million rehabilitation of the 'Skylink' due to concerns about its structural condition. We are aware that this was a costly project, not originally supported by users in the form built due both to cost and poor customer service in terms of walking distances. It has only been in use for less than 12 years, yet the asset is noted as being at the end of its Design Life. This is simply extraordinary given that such structures would normally be expected to have a life of 30-40 years. Hence, it is not satisfactory that additional capex is now required to maintain its structural integrity. This only serves to highlight the inefficiency of Dublin Airport in over-investing but not ensuring the quality of the delivered outcome. Users should not have to pay again for remedial works to the inadequate construction in the first place.

***CIP.20.01.065 – Airport Heavy Fleet & Equipment Replacement***

- 6.53 The CIP states that this project is required to replace life expired vehicles within the Airport's airside and landside fleets as well as to augment the fleet to take account of campus growth in relation to the new Northern Runway. Specifically, it proposes to replace 7 foam fire tenders with 6 new generation tenders, add new vehicles the snow and ice fleet as well as purchasing new glycol sweepers and friction testing machines to handle the additional airfield pavement footprint.
- 6.54 Given the highly technical nature and known high cost of new generation fire tender, we estimate that these vehicles account for at least half of the total project cost. We, therefore, question why 2 of the 7 existing tenders are being replaced before their standard asset life. This point is raised in the CAR Draft Determination but overlooked on the grounds that these vehicles are business critical. Such premature replacement would not be the normal practice at an airport behaving competitively where the costs could not automatically be passed through to users. We consider this replacement programme can be phased over 2 quinquennia.

***CIP.20.01.071 – Electric Charger Network Facilities***

- 6.55 Whilst we accept that this project will ultimately benefit passengers, we question why it has been included in Asset Care as the charging facility will be revenue generating and is surely more appropriate listed under Commercial. We do understand that there are some existing charging facilities landside, but this project is understood not to be related to maintenance or direct replacement of those charges but the development of a far larger EV charging facility. We would expect the revenue to be earned from such facilities to be included as an incremental income within the commercial income estimate but does not appear to have been done so in the Draft Determination.

**CIP.20.01.099 – RWY 16/34 Lighting for Low Visibility Procedures (LVP)**

- 6.56 Whilst we understand the operational function of Runway 16/34 as a taxiway now and in the future, we would question the value of providing LVP lighting which may only get used 2-3 days of the year<sup>33</sup>, especially when there is soon to be a full length dual code E parallel taxiways to the east of Runway 16/34 and a proposed parallel to the west of 16/34 shown on Dublin Airport's 55 mppa Master Plan for the longer term. Dublin Airport needs to substantiate this requirement with firm evidence from IAA that traffic cannot be managed on the Foxtrot taxiways in the few instances when LVPs are observed. In the absence of such a substantive justification, this project should be omitted.

**Asset Care – Mechanical and Electrical**

- 6.57 These projects form part of what appears to be excessive allowances for maintaining the existing assets, as noted above. It is difficult to comment on the specific requirements for the renewal of these items and which of these are critical within the quinquennium or not. There is also an issue of excessive contingency allowances, which we address later in this section.

**IT Projects**

- 6.58 These projects form part of what appears to be excessive allowances for maintaining the existing assets, as noted above. It is difficult to comment on the specific requirements for the renewal of or additional items in this area and which of these are critical within the quinquennium or not.

**Security Projects**

- 6.59 With the exception of HBS 3 upgrade, which we acknowledge is a European security compliance requirement, we have not made any technical assessment of the validity of scope for this group of projects. Again, most of these appear to be asset renewals and, hence, form part of what appears to be excessive allowances for maintaining the existing assets, as noted above.

**Conclusions**

- 6.60 As set out at the start of this review of maintenance capex, we demonstrated that the proposed spend on maintenance capex projects including IT and Security is excessive when compared to other airports. To reduce the annual capex spend per million passengers to closer to what is seen at Gatwick or Manchester, the CAR would need to reduce the budget by €90-100 million over the quinquennium.
- 6.61 We have estimated that at least €50 million could be removed from the Asset Care projects in a mixture of scope reduction, removal and construction cost reduction. The remaining €40 to €50 would have to be comprised of cuts to the scope of projects within Appendices B, E and F to the CIP and or the reduction of contingency allowances which we maintain are excessive across the board as discussed below.

**Commercial Projects**

- 6.62 The key issue in relation to Commercial Projects is the point made in the previous section, namely that where commercial projects are included within the RAB, it is imperative that the incremental income is also included within the Commercial Revenues (as set out in Section 5). Whilst we recognise that the historic extrapolations upon which the CAR relies will have included previous commercial projects which generated incremental revenues, the evidence within the last quinquennium would strongly suggest that this has not proved robust to Dublin Airport's ability to earn incremental revenue. This is a critical issue in relation to both the treatment of these projects within capex and in ensuring there is a robust baseline for expected commercial revenues in the next quinquennium. Currently, there is a mismatch between the proposed allowance of the capex cost of the projects and the assumptions underpinning commercial revenues.

<sup>33</sup> CAR, Maximum Level of Airport Charges at Dublin Airport 2020-2024 Draft Determination, Para 16.38.

- 6.63 By way of example, CIP.20.08.001 – Retail Refurbishments, Upgrades and New Development is projected to deliver a commercial revenue uplift of €6.3 million per annum, CIP.20.04.006 and CIP.20.04.007 – Upgrades to the T1 and T2 Multi-storey Car Parks an uplift of €4.5 million per annum. In total, the CIP indicates an incremental revenue of €22.35 million per annum from the Commercial Projects, which would equate to an uplift in commercial revenues of c.9% per annum in real terms, whereas commercial income is only forecast in the Draft Determination to increase by around 3.3% per annum by the end of the quinquennium<sup>34</sup>. This strongly suggests that there is a fundamental inconsistency in the Draft Determination in terms of allowing all of these projects into the RAB but not accounting for Dublin Airport’s own expectations as to increased revenue, which in turn is used by the Airport to seek to justify the projects on a NPV basis. If the CAR does not believe Dublin Airport is capable of generating such increased revenues from these projects, then it follows that the capital allowance should be reduced to a level commensurate with the uplift in commercial revenue that the CAR has allowed in the Draft Determination.
- 6.64 In the alternative, if the capex is going to be allowed, it is imperative that the appropriate adjustments are made to the commercial revenue assumptions within the Determination. We believe that the correct response would be to add all or most of the €22.35 million per annum additional revenues into the Commercial Revenue estimates over the quinquennium, adjusted only by the timing within the quinquennium when the projects are expected to be delivered.

### Contingencies

- 6.65 We note that the level of contingency within the capital cost estimates is very high, with 21% contingency across the whole programme. In some cases, individual projects have contingencies up to 25%. We appreciate that contingency allowances are necessary, particularly at an early stage of design development of an individual project, to allow for expected variations of cost and known uncertainties, and we recognise that, project by project, standard assumptions have been made to derive a contingency allowance considered appropriate. Nonetheless, we are concerned that the sum total of all contingency allowances has been added into the RAB. Recognising that the concept of contingency is to recognise that there are risks associated with estimating the costs of projects at an early stage, not all of these risks will come to fruition and, indeed, some projects may come in under budget. Therefore, across the programme as a whole, we would expect the sum total of all of the risks to be less than the sum of all identified contingency amounts project by project. If all of the risks came to fruition, this would strongly suggest that Dublin Airport is not managing its Capital Investment Programme efficiently.
- 6.66 Hence, we believe that across the programme, there should be scope for Dublin Airport to manage risk so as to reduce the need for an overall contingency of the amount currently proposed to be allowed (some €344 million). We believe that over and above other savings, it should be possible to manage the overall programme contingency down to some €200 million, taking into account that all project risks will not arise. This would be consistent with incentivising Dublin Airport to manage its capital investment efficiently in the interests of users.

### StageGate Process

- 6.67 To a large degree, the StageGate process is designed to overcome the issues we have identified earlier in this section in allowing for adjustments to the amount of capex within the quinquennium, allowing for projects to be disallowed if users no longer support the level of expenditure and/or if the Independent Fund Surveyor (IFS) considers the costs excessive or not efficient. This proposal, as set out in the Steer Report<sup>35</sup>, is largely based on the system in force at Heathrow.
- 6.68 As defined in CP4/2019, the CAR proposes to adopt Option B of the Steer Report. In this approach:
- *StageGate 0* – assumes that all regulatory capex allowances at the outset have been set and agreed with users and subject to a capex efficiency assessment by the equivalent of the IFS (the Steer capex efficiency report);

<sup>34</sup> Draft Determination, Table 7.1.

<sup>35</sup> Steer, Dublin Airport – Process for setting capex allowances for the regulatory determination period.



- *StageGate 1* – periodic reviews by the IFS of the cost at the point when the Airport has cost certainty on the project and is ready to proceed. At this point, users would be given the opportunity to decide whether they still supported the project and CP4/2019 outlines a process for obtaining user views and confirming the go ahead for the project.
  - *StageGate 2* – reviews by the IFS during the construction process to ensure that the project is still being delivered efficiently;
  - *StageGate 3* – a review by the IFS at the time of the next Determination to assess and confirm the extent to which the totality of the capex should be confirmed within the opening RAB.
- 6.69 As part of this process, there would necessarily need to be confirmation of the actual amount of the contingency allowance that would need to be expended.
- 6.70 We note that, currently, the CAR proposes that £1.3 billion of the total capex programme (71%) should be subject to the StageGate process. However, as we have identified, there is substantial scope to reduce the capital programme in the first instance by ensuring that projects are correctly scoped or likely to be required at all within the quinquennium. We consider important that these savings are made at the outset to the amount allowed into the RAB in order to ensure that users are not penalised by airport charges set too high in the first place. It is little comfort to existing users that the capex allowance may be adjusted at the start of the next quinquennium if contingency allowances are not needed, the projects are not proceeded with as no longer meeting the needs of users at the higher cost, due to over-specification or scoping, or as a result of programme slippage as expected.
- 6.71 In other words, the introduction of a StageGate process does not negate the importance of ensuring that the initial assumptions about capex to be added to the RAB are correct.
- 6.72 It is notable that there are some fundamental differences to the approach adopted at Heathrow, which we consider could negate, to a substantial extent, the value of adopting the process as set out in CP4/2019 unless rectified at the outset:
- We understand that the capex allowance set at Heathrow resulted from a detailed ‘Constructive Engagement’ process which agreed, to a large degree, the level of capex that should be assumed for Q6<sup>36</sup>;
  - The capex projects were divided into those with greater cost certainty that were included in the RAB at the P50<sup>37</sup> level;
  - Projects were deemed to be riskier or with less cost certainty at the outset were allowed at the P80<sup>38</sup> level;
  - There is an ongoing process of engagement between the Airport and the users to confirm projects that meet the relevant Capital Investment Triggers in accordance with the Q6 Capital Investment Triggers Handbook<sup>39</sup>.
- 6.73 The key points here are that there was a process by which the amounts to be allowed were agreed between the Airport and the users through Constructive Engagement prior to the price cap decision and, secondly, that there was a conscious decision not to allow for all of the contingencies within the RAB, pending firmer costs being available and users confirming agreement to the costs and scope of the project through the Capital Investment Trigger process.
- 6.74 Hence, whilst generally supporting the adoption of the StageGate process, we consider that there are a number of improvements that need to be made to the process to ensure that it is effective and preserves the interests of users:

<sup>36</sup> Civil Aviation Authority, CAP 1027, Economic Regulation of Heathrow Airport initial proposals, April 2014.

<sup>37</sup> There is a 50:50 chance that the level of contingency allowed would be sufficient, reflecting the greater confidence in the estimate at the time the price cap was set.

<sup>38</sup> P80 means that there is an 80% probability that the contingency allowance is sufficient, reflecting a greater level of uncertainty at the time when the capital allowance is set for the price cap decision.

<sup>39</sup> Condition C1.7, Heathrow Airport Ltd Licence Granted under the Civil Aviation Act 2012.

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- Further work is required to determine the requirement for all of the projects in the CIP and their deliverability within the quinquennium (as outlined earlier in this section) prior to setting the initial allowance into the RAB;
  - This should be accompanied by a process for determining cost certainty and assigning the appropriate level of contingency (less than 100%) for allowance into the RAB ahead of the within quinquennium trigger process akin to that in place at Heathrow;
  - Ensuring that a robust Constructive Engagement process is in force at Dublin.
- 6.75 In general, we support the CAR's proposed scope of projects to be included within the StageGate process, subject to comments we have made on individual projects. We understand that Ryanair and other airlines would be willing to resource such a process if it is robust and leads to an improved sharing of information between daa and its users on a regular basis during the quinquennium as well as in the lead up to each Determination.
- 6.76 In **Appendix E**, we make some further adjustments to projects that we consider should be included within the scope of the StageGate process adding to the proportion of the capex that would be subject to this process.

## Conclusion

- 6.77 However we look at it, we believe that there is scope to reduce the capex allowed in the Determination by a substantial amount. This would be justified on a number of counts:
- Arising from prematurity of investment to accommodate in excess of 40 mppa, with specific projects reduced in scope and deferred to the next but one quinquennium also taking into account planning risk and the likelihood of slippage; and/or
  - By reducing the capex allowances and contingencies based on our specific comments on the need for individual projects and the total contingency, which could save of the order of €400 million without other action; and
  - By adopting a StageGate process with a proportionately more limited initial allowance of capex into the RAB in the first instance, reflecting in the first instance the reduction in contingencies that we recommend.

## 7. Financial Viability

- 7.1 We understand that the CAR has undertaken a financial viability exercise in an attempt to ensure that the 'notional' Dublin Airport maintains and meets its 'intermediate' level target for investment grade credit rating, which has resulted in the CAR's proposal of accelerating €133 million of depreciation into the period, adding around €0.34 in the price cap per passenger.
- 7.2 We believe that this addition to the price cap is derived from a financial viability assessment that lacks a holistic approach and is overly mechanistic. This chapter addresses the key points that CAR should consider in its approach to considering if a financial viability adjustment is even needed and, if so, how much is required. Ultimately, consideration of financial viability is linked to the assessment of the appropriate cost of capital and there is a danger of making upward adjustments on both counts in a manner which unduly penalises users through the price cap.

### Capex

- 7.3 The CAR proposed to allowed virtually all of the capex requested by Dublin Airport to be included in the RAB during the quinquennium, despite admitting that there is a considerable likelihood that the Airport will not be able to deliver the full CIP. It is our view that, for several reasons the capital requirements for the coming period may well be substantially less than the CAR proposed to allow in the Draft Determination, as we have explained in the previous section. It is this excessive capex that in large part drives the assessment of financial viability. If the capex requirements reduce, opex efficiency targets are imposed and commercial revenues are properly adjusted upwards, this would substantially reduce the amount of borrowing required to finance that amount of investment. The lower level of capex, in particular, would need to be taken into account in the financial ratio analysis as it is inequitable to users to assess on financial viability from capital expenditures that may not even take place during the period.
- 7.4 Furthermore, for the reasons set out in the previous section, we favour adopting the same approach as the UK regulator, which is to reduce the amount of capex allowed into the RAB at the start of the quinquennium following a StageGate type process, as discussed in the previous section, plus reducing/removing certain projects as not required or not yet justified for expenditure in the next quinquennium. In this eventuality, the amount of capex would be reduced further as a start position, with a consequential impact on the financial viability assessment.

### Debt

- 7.5 We note that nearly a quarter (24.6%) of the Group's financial liabilities (sum of short and long term) are repayable within 5 years<sup>40</sup>. Currently, the CAR's assessment takes this start position and adds new debt to reflect the expected capex programme. Regardless of the level of capex that is eventually considered as reasonable, as new debt is added to the financial ratios we believe that the existing debt should be reduced, in line with its respective commitment period. This would be akin to reducing the RAB in line with predicted depreciation, otherwise there is double counting. We believe that this is something that the CAR should also take into account when adding additional debt so as to model a more realistic forecast of future debt levels as part of the financial viability assessment.

### Dividends

- 7.6 We understand that daa has a dividend policy in place, ranging between 30-40% of post-tax normalised profit. However, we do not accept that, in the context of a 'notional airport', it is appropriate to pre-determine the dividends payable. This is not how a commercial airport operating competitively would behave. Dividends would be determined based on the performance of the business rather than being pre-determined. Hence, it is inappropriate for the financial ratios to incorporate any aspect of the Airport's dividend policy because:

<sup>40</sup> daa Annual Report, Note 18.

- the financial viability of the Airport is the key priority of this exercise and ensuring the successful delivery of the new runway is paramount. Distributing any dividends could potentially indicate a lack of commitment from the shareholders to ensure financial viability as the additional cash out flow reduces the Debt/EBITDA ratio. In the alternative, if dividends are retained in the business, this increases capital through retained earnings thus reducing the borrowing requirements. Hence, the fixed payment of dividends could not only reduce the amount of available capital but also potentially provide negative a sign to lenders if the shareholders are unwilling to sacrifice dividend payments to fund expansion;
- financial debtholders would normally have higher priority over a company cashflows, assets, property, plant and equipment than shareholders, which helps tackle the riskiness of the lending facility in the first place.

- 7.7 It is important that the ownership of the Airport by the Government does not distort the assessment of financial viability as regulation is supposed to replicate, as far as possible, the behaviour of an airport operating in a commercial competitive environment. In these circumstances, the dividend policy would not be pre-determined.
- 7.8 In any event, the dividends to the shareholders of daa come from the cashflows of the daa group, which is made up of airport management (including international airport operations and investments in Cyprus, Dusseldorf and Saudi Arabia), travel retailing (with outlets in Europe, Middle East, North America, India and Asia-Pacific) and aviation consultancy. Incorporating the dividend policy of the entire daa group purely into Dublin Airport for the purpose of the financial viability assessment is unfair and not reflective of a ‘notionally efficient’ airport standing alone.

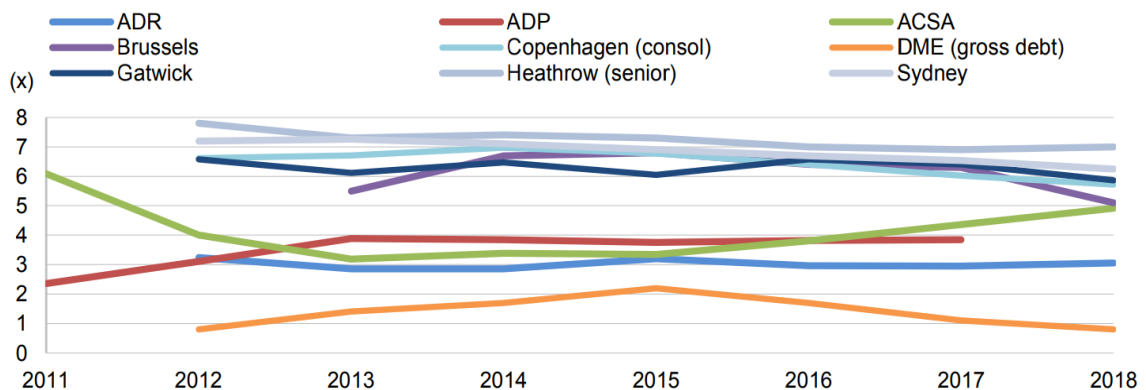
### Market Evidence

- 7.9 In the first instance, we note that the CAR is concerned that the modelled Debt/EBITDA ratio is considered high, which could pose a financial risk to the Airport. However, there is significant market evidence showing that high leverage is common in the airport sector and in the infrastructure sector more generally.
- 7.10 **Figure 7.1** below, shows that over half of the airport comparators in this sample identified by Fitch Ratings, have had Net Debt/EBITDA ratios that have been over 6, yet, all the airports apart from Moscow Domodedovo, have investment grade credit ratings. This is because the investment grade credit ratings are not purely driven by financial risk ratios, but a combination of country risk, industry risk, competitive profile, business risk profile, financial risk profile and others<sup>41</sup>.

**Figure 7.1 - Net Debt/EBITDA ratios at comparable airports<sup>42</sup>**

#### Leverage in Fitch Rating Case

Net debt/Ebitda (Fitch adj.)



Source: Fitch; FY end 31 Dec except ACSA and Gatwick 31 March

<sup>41</sup> Heathrow Funding Limited Ratings Summary, February 2018, S&P.

<sup>42</sup> Fitch Ratings: Airport Peers’ Positioning, Role in Aviation Networks and Leverage Key Differentiating Factors, Special Report <https://www.brusselsairport.be/uploads/media/default/0001/12/55c6d35eaa1b3a6603a29c7221f0f63dd8ed8003.pdf>

7.11 The falling cost of debt has provided an incentive for airports to finance and conduct capex projects to develop additional capacity, which has resulted in higher than historic Net Debt/EBITDA ratios reflecting the current borrowing conditions. Furthermore, to the extent that capacity expansion accommodates additional passengers, this will convert into additional aero and non-aero revenues and, hence, earnings, gradually improving this ratio over time. There is no reason to assume any different for Dublin.

7.12 Moody's, in its report on low interest rates in the infrastructure and utilities sector<sup>43</sup>, states the following:

*"With yields at historical lows and interest rates likely to remain "low for longer" offering cheap borrowing and refinancing, EMEA infrastructure and utilities companies will be among the main beneficiaries given their typically high leverage"*

*"Low rates will continue to support infrastructure and utilities companies' credit profiles, allowing them to reduce financing costs and extend debt maturities," says Joanna Fic, a Moody's Vice President -- Senior Credit Officer and author of the report."*

*"Companies with large near-term debt maturities stand to benefit the most from low rates. Infrastructure and utilities have in total 27% of debt maturing in 2016-18. This could be refinanced at 250-300 bps below the current average cost of debt. Some companies seek to refinance debt early, which allows them to lock in a lower cost of debt and extend debt maturities, a credit positive."*

*"Corporate structures may become more complex as companies search for yield or re-leverage. Against a background of muted economic growth, capital expenditure budgets are not rising except in the regulated/contracted segment, where there is greater visibility over returns. Given a lack of investment opportunities and the availability of cheap funding, companies may bid more aggressively, squeezing margins, and/or corporate structures may become more complex."*

7.13 Further analysis of several investment grade airports outside Europe, namely Dallas Fort Worth, Miami International and Chicago O'Hare suggests that airports still retain their Investment grade status, some even with a ratings upgrade, despite the amount of debt totalling over 6x their earnings so long as the cost of debt servicing is kept low to reduce the impact on the short term liquidity position of the airport. **Table 7.1** below illustrates the credit ratings and debt/earnings ratio of these airports:

**Table 7.1 - Investment grade airports and debt/earnings ratios**

Airport	Credit Rating	Ratings Agency	Debt/Earnings <sup>44</sup>	Ratio considered
Dallas Fort Worth (DFW)	A+	Fitch	10.3x	Net debt/cashflow
Miami (MIA)	A	Fitch	12.1x	Net debt/cashflow available for debt servicing (CFADS)
Chicago O'Hare (ORD)	A	S&P	15x-20x	Debt/Net Revenues
Heathrow	A-	Fitch	7.4x	Net Senior Debt/EBITDA
Gatwick	Baa1 (BBB+)	Moody's	6.5x	Net Debt/EBITDA
Sydney	BBB+	S&P	6.6x	Net Debt/EBITDA

Source: S&P, Fitch and Moody's reports on respective airports, Gatwick Annual Report

<sup>43</sup> Moody's Investor Services: Announcement: Moody's: Low interest rates benefit EMEA infrastructure, utilities firms but are not without risks, [https://www.moody's.com/research/Moodys-Low-interest-rates-benefit-EMEA-infrastructure-utilities-firms-but--PR\\_358489](https://www.moody's.com/research/Moodys-Low-interest-rates-benefit-EMEA-infrastructure-utilities-firms-but--PR_358489).

<sup>44</sup> We use the term debt/earnings loosely because the ratings agencies have also used CFADS, net revenues and cashflows instead of EBITDA but they are also similar proxies that compare debt to earnings.

- 7.14 We also note that Fitch’s 5-year projection of Manchester Airport Group’s Net Debt/EBITDA of 3.9x has been labelled as a ‘low’ Debt/EBITDA ratio in comparison to its peers. MAG’s latest Annual Report shows a Net Debt/EBITDA of around 3.7x. However, in its 6-monthly report, with a growth in debt and adjusted earnings (adjusted to the growth in half year vs previous year covering summer 2018), we estimate a multiple of 4.2x, slowly moving up to 5.6x with the issuance of a £350m bond and a £175m loan from the shareholders that has taken place in the second half of FY 2018 to fund, mainly, the Manchester Airport Transformation Programme. The Group has been assigned a rating of BBB+ which has not changed since November 2016<sup>45</sup>.
- 7.15 The daa group currently has net debt just around 1.5 times the earnings<sup>46</sup>, which puts the group in the minimal risk category of Debt/EBITDA multiple of less than 2, well below that seen elsewhere in the airport sector. We believe that the daa group are in a very comfortable position when it comes to its short-term liquidity and long-term indebtedness and there is, hence, absolutely no case for a financial viability adjustment to be applied.
- 7.16 Regarding debt market accessibility for higher leveraged companies, KPMG in its commentary on the Ofwat Consultation stated that:

*“The fact that more leveraged companies are able to access debt capital markets freely and achieve the required investment credit ratings, demonstrates comfort in the efficient functioning of the debt market and limits to financial risk, at least to the extent credit ratings can be seen as a good reflection of such risk, at the adopted levels of gearing.”<sup>47</sup>*

- 7.17 On a closer look, we have also observed a substantial demand for Irish corporate/sovereign debt and for providing debt to airports elsewhere. **Table 7.2** below, outlines recent bond issuances and the demand for them. Evidence from Heathrow suggests despite the higher than average Net Debt/EBITDA ratios, the airport is still successful in attracting lenders, raising over €600m weeks before the previous Brexit deadline in March. The National Treasury Management Agency on the other hand have successfully auctioned the benchmark 1.1% Treasury bond, yielding 0.297% with an orderbook of €2,712.

**Table 7.2 - Demand for Irish and Airport bonds**

Issuer	Credit Rating	Year	Duration (years)	Interest	Amount (millions)	Orderbook	Subscription
NTMA	A+	2018	13	1.399%	€3,000	€11,300	3.77x
NTMA	A+	2019	10	1.100%	€1,000	€2,712	2.71x
ESB	A-	2019	11	1.125%	€500	€4,000	8.00x
Heathrow	A-	2019	15	1.875%	€650	€2,800	4.31x
MAG	BBB+	2019	25	2.875%	£350	£1,400	4.00x

Source: NTMA, Irish Times, City AM, Heathrow Debt Information, MAG press release<sup>48</sup>

- 7.18 Furthermore, there is no evidence that Dublin Airport has difficulty in raising debt given the recently announced a substantial €350 million loan from the EIB<sup>49</sup>, at competitive interest rates over a 20 year period. The process of obtaining the debt was substantially de-risked by the involvement of the Taoiseach in the process, creating the perception of a de facto government guarantee.

<sup>45</sup> MAG Annual Report 2017-18, 2018 Half Yearly report and news on bond issuance.

<sup>46</sup> <https://www.irishtimes.com/business/transport-and-tourism/daa-in-talks-with-european-investment-bank-for-up-to-200m-1.3876170>

<sup>47</sup> KPMG: Commentary on Ofwat Consultation on Putting the Sector back in balance, 2018

<https://www.ofwat.gov.uk/wp-content/uploads/2018/04/Kelda-Project-Stoddart-KPMG-Report-Final-160518-clean-final.pdf>.

<sup>48</sup> Sources for Bonds:

- NTMA 2019: <https://www.ntma.ie/news/ireland-sells-1-billion-of-bonds-maturing-in-2029>
- NTMA 2018: <https://www.ntma.ie/uploads/publication-articles/Investor-Presentation-May-2019.pdf>
- ESB: <https://www.irishtimes.com/business/energy-and-resources/esb-borrows-500m-in-first-ever-green-bond-1.3914697>
- Heathrow: <https://www.cityam.com/heathrow-issues-eur650m-bond-weeks-before-brexit-deadline/>

MAG: <https://mediacentre.magairports.com/mag-secures-350m-in-uk-bond-market/>.

<sup>49</sup> <https://www.irishtimes.com/business/transport-and-tourism/dublin-airport-gets-350m-eib-loan-for-upgrade-1.3932503>.



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## S&P Global

- 7.19 In a recent report, S&P<sup>50</sup> reaffirmed daa's rating as A-. In this research update, S&P confirmed that their base-case scenario assumed airport charges at the level set by CAR in its draft Determination, and about €2.4bn capital expenditure. This confirms that daa can proceed with their capital investment proposal with the level of airport charges proposed by CAR in the Draft Determination without detriment to its credit rating or the need to further increase the WACC beyond that proposed in the Draft Determination.
- 7.20 Furthermore, if the actual capex requirements were substantially less than €2.4 billion, as we have argued in the previous section, this would have a material positive effect on this outlook and could enable the WACC to be reduced further.
- 7.21 The dividend assumptions estimated by S&P also show that the cumulative dividends could amount to between €150m and €200m over the five years which, if not paid out in part or in full, could be used to make savings for daa on the cost of and the issuance of debt, thereby lowering its WACC.
- 7.22 S&P have also acknowledged the *"moderately high degree of extraordinary State support"* as a positive factor for daa, which would *"offset a potential one-notch downward revision"* in future if conditions were perceived to worsen. Overall, the assessment by S&P vindicates the conclusions about the relationship between capital costs and financial viability in the Draft Determination.

## Conclusion

- 7.23 We believe the CAR should revisit the financial viability exercise and carefully take into account the true capex requirements for the next 5 years as well as setting realistic opex and commercial revenue targets. When coupled with a prudent approach to future dividend policy and the prioritising of the viability of the business over the automatic distribution of dividends, this would ensure that any financial viability risk is minimised.

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<sup>50</sup> S&P Global: Irish Airport Operator daa PLC Outlook Revised To Stable On Expected Lower Tariffs; 'A-' Rating Affirmed, 3 July 2019

## 8. Cost of Capital (WACC)

- 8.1 This section revisits and analyses the individual components that make up the cost of capital as currently proposed within the Draft Determination and evaluates the methodology implemented by Swiss Economics upon which it is based. Primarily, we have considered the Total Market Returns, Equity Risk Premium, Beta and the cost of debt.
- 8.2 Our findings are summarised topic by topic and we have provided an estimated range and/or a point estimate for these inputs to the cost of capital.

### Total Market Returns (TMR) and Equity Risk Premium (ERP)

- 8.3 At the outset, it is important to understand the distinction between the Equity Risk Premium (ERP) and Total Market Returns. ERP is the premium expected/earned over and above the risk-free rate as a result of investing in equity markets in a given time frame. This involves identifying the difference between the returns from the appropriate equity market (stock index) and the 10-year Government bond rates in the same time frame.
- 8.4 However, Swiss Economics<sup>51</sup> have placed a heavy weight on estimated Total Market Returns since 1900, whilst only estimating risk free rates between 2014-2019. This means the time frames for comparing the returns on both assets are inconsistent, which effectively invalidates the ERP estimates presented in their work. ERP is a relative measure, meaning the timeframe for comparison should be kept consistent. We, therefore, believe that the TMR estimates that include historical rates from 1900, used in Swiss Economics assessment, are inappropriate for this Determination and lead to an overstatement of the ERP.
- 8.5 We note that the ERP is now assessed as higher than that used in the 2014 Determination, which would imply that equity markets have become riskier/returning higher than the previous Determination. This is not consistent with our understanding and further evidence would be needed to justify this increase in equity premium since the last Determination if it is to be adopted within the current Determination.
- 8.6 Using data for equity returns and 10-year government bond rates between 1900 and 2016, we have estimated the ERP for Ireland, Germany and Europe, taking into account of arithmetic average, geometric average and adjusting using Blume's method. **Table 8.1** shows the estimated outcomes:

**Table 8.1 - Annualized Real Returns of Equities, Bonds and subsequent ERPs, 1900-2016**

	Equity Returns		Govt Bond Returns		ERP		ERP (Blume's Method)
	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	
Ireland	4.4%	7.7%	1.6%	2.7%	2.8%	5.0%	4.8%
Germany	3.3%	8.1%	-1.3%	1.3%	4.6%	6.8%	6.6%
Europe	4.2%	6.0%	1.1%	2.4%	3.1%	3.6%	3.6%

Source: York Aviation Analysis based on DMS (2017)

### Equity Returns Over Time

- 8.7 **Figure 8.1** outlines the evolution of equity returns in both Ireland and Germany since 1900 with a comparison of returns against two different time periods, 1980-1999 and 2000-2016. The data suggests that equity returns particularly rose between 1980-1999 but dropped significantly between 2000-2016.

<sup>51</sup> <http://www.aviationreg.ie/fileupload/2019/Draft%20Determination/2020-2024%20Draft%20Efficient%20Cost%20of%20Capital%20Study.pdf>

**Figure 8.1 - Annualised Real Returns per Year (%)**

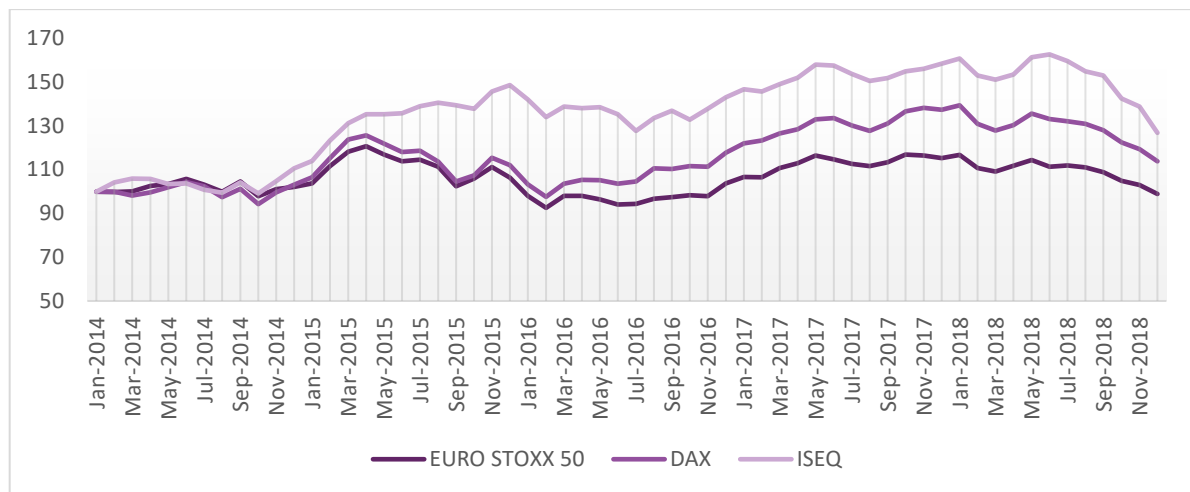
Countries	Period	Equities	Bonds	Bills	Inflation	Best
Germany*	2000 – 2016	2.2	7.1	0.3	1.5	Bonds
	1980 – 1999	11.0	4.8	3.5	2.6	Equities
	1900 – 2016	3.3	-1.3	-2.4	4.6	Equities
Ireland	2000 – 2016	2.0	5.6	0.4	1.9	Bonds
	1980 – 1999	12.9	8.9	4.8	5.5	Equities
	1900 – 2016	4.4	1.6	0.7	4.1	Equities

Source: DMS (2017)

**TMR Estimates based on similar time frame and markets as the Risk-free Rate**

8.8 In line with the risk-free rate calculations, we have also identified returns on three different indices, EUROSTOXX 50, DAX and ISEQ overall index in the 5 years between 2014-2019 with a monthly average of closing level. The three indices represent Ireland, Germany and EUROSTOXX 50 (as used by Swiss Economics). Results show that over the five-year period, the ISEQ index has provided the highest returns, reaching around 127, whilst EUROSTOXX 50 remained stagnant and DAX returns were relatively lower. See **Figure 8.2** below:

**Figure 8.2 - Indexed returns of Irish, German and European Indices between 2014-2019**



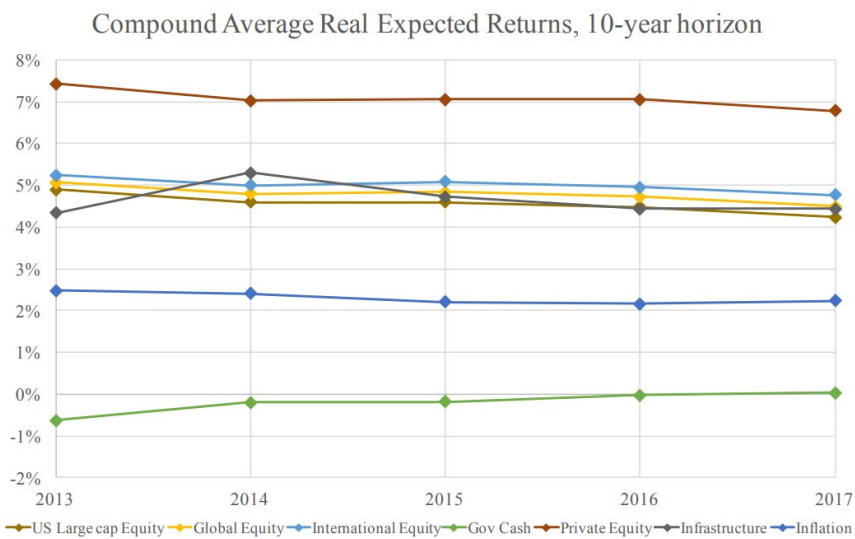
Source: Borse Frankfurt, Euronext and York Aviation Analysis

8.9 The trend here suggests an average annual return between 2.8% to 5.4% on the German and Irish stock index. Adjusting the TMR to the Risk-free rate range of -0.72% to 0.45% gives us an ERP range of 3.5%-5%, which is around 2.0% to 2.7% lower than the initial estimated ERP suggested in the Draft Determination.

**Evidence amongst financial practitioners**

8.10 **Figure 8.3** provides some evidence of a consensus amongst financial practitioners that expected returns on global stock markets have been weakening in recent years. Global, International and US Large Cap Equity have all been achieving returns of around 4.5%-5.2% which equates to an ERP range of 4.8%-5.2%.

**Figure 8.3 - Expected returns consensus amongst various financial practitioners**



Source: UKRN (2018). Estimating the cost of capital for implementation of price controls by UK Regulators – an update on Mason, Miles and Wright (2003)

8.11 PwC<sup>52</sup> has also compiled a set of comments from various sources regarding the TMR expectations in the future, which we consider are relevant to the appropriate rate to be set in the Determination:

*“As we continue to live in a low-return world, bond returns are likely to be much lower and there is no reason to believe that the equity risk premium is unusually elevated. Consequently, the real returns on bonds, equities and risk assets in general seem likely to be relatively low.”<sup>53</sup>*

*“Our analysis suggests that over the next 20 years, total returns including dividends and capital appreciation could be considerably lower than they were in the past three decades. This would have important repercussions for investors and other stakeholders, many of whom have grown used to these high returns”<sup>54</sup>*

*“The prospect of an extended period of low returns – and its potential effect on retirement – is an emerging challenge. BlackRock is one of 35 financial industry firms included in a consensus capital markets forecast compiled by Horizon Actuarial Services that suggests average annual returns for U.S. equities and bonds may be more than 3% lower than their averages for recent decades.”<sup>55</sup>*

*“For investors in the US and Europe who yearn for the normality of decades past, I am afraid that normal is not returning. We have to recalibrate our assumptions about what is normal (for interest rates, risk premiums, inflation and economic growth) and pay less heed to rules of thumb that were developed for another market (US in the 1900s) and another time.”<sup>56</sup>*

**Recommendations**

8.12 Our recommendations on the ERP to be implemented are summarised in **Table 8.2** below:

<sup>52</sup> PwC Estimating the cost of capital for H7, A report prepared for the Civil Aviation Authority (CAA), November 2017.

<sup>53</sup> Credit Suisse Research Institute, Credit Suisse Global Investment Returns Yearbook 2016.

<sup>54</sup> McKinsey Global Institute (2016), Diminishing returns: Why investors may need to lower their expectations, May 2016

<sup>55</sup> Blackrock (2016), Long-term thinking in a low return world, October 2016.

<sup>56</sup> aswathdamodaran.blogspot.co.uk/2015/04/dealing-with-low-interest-rates.html.

**Table 8.2 - Recommendation on ERP**

	<b>Low</b>	<b>High</b>
Long-term ERP using DMS	3.6%	6.6%
Short-term ERP using index returns	3.5%	5.0%
Market Expectations	4.6%	5.2%
Low/High ERP	3.5%	6.6%
Average	3.9%	5.6%
<b>Point Estimate (ERP)</b>	<b>5.6%</b>	

- 8.13 We recommend a point estimate ERP of 5.6% which is towards the higher end of our range, acknowledging the drop in the TMR, yet giving considerable weight to regulatory precedent.
- 8.14 We have chosen not to estimate the TMR, as the Risk-Free Rate (RFR) estimates only use data between 2015-2019. We have provided a more appropriate ERP by considering the short term and long-term estimates of TMR and RFR to produce ERP's that reflect market conditions today.

### Asset Beta

- 8.15 We note that Swiss Economics have conducted detailed assessment of the Asset Beta, both in the short and longer term, and have assigned weights using various airport characteristics, such as the regulatory environment, demand structure and business structure. Although we agree with the methodology of comparing the betas, we do not agree with the selection of airports.
- 8.16 Using regulatory decisions on asset betas for Heathrow, Gatwick and Aeroporti di Roma, as well as the actual data for listed airports, creates a double counting discrepancy as these decisions have firstly already used some, if not all, of the listed airport stocks to form a view. Secondly, the time frame used to derive these betas are not consistent. Betas deriving from regulatory decisions in 2014 and 2016 have necessarily used data prior to these years and, thus, do not reflect movements beyond these years, which are material to making a Determination in 2019.
- 8.17 Furthermore, the inclusion of Auckland and Sydney in the sample, despite the claimed compatibility with the circumstances at Dublin Airport, is not relevant as they operate in different geographies and have a connectivity mix that is not the same as Dublin.
- 8.18 Our concern lies in the fact that the heaviest weightings have been given by Swiss Economics to Heathrow, Gatwick and Auckland Airport (a combined weighting of 33% or 51% with Sydney and Rome), especially as the data on which these rely is based on a different time frame (just after the recession and during the European downturn) and a different geography in the case of Auckland and Sydney.
- 8.19 For that reason, we have eliminated the five airports from our analysis and have re-weighted the Asset Betas to estimate a more appropriate Asset Beta of 0.39. We have used Table 23 from the Swiss Economics Report as the starting point, see **Table 8.3** below:

**Table 8.3 - Asset Betas of Comparator Airports and their Weights**

Airport	Average Beta	Original Weight	Adjusted Weight
Aena	0.42	8%	16%
Aerorports de Paris	0.47	8%	16%
Aeroporti di Roma	0.57	9%	
Auckland	0.52	11%	
Copenhagen	0.07	6%	12%
Fraport	0.39	6%	12%
London Gatwick	0.52	11%	
London Heathrow	0.47	11%	
Sydney	0.4	9%	
TAV (Turkey)	0.47	8%	16%
Vienna	0.3	8%	16%
Zurich	0.6	6%	12%
<b>Weighted Average Beta</b>	<b>0.45</b>		<b>0.40 (rounded)</b>

Source: Swiss Economics, 2019 & York Aviation Analysis

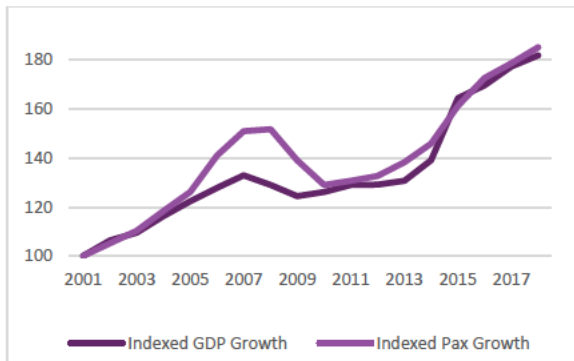
- 8.20 It is not unreasonable to assume this lower risk since Dublin Airport is a regulated entity and state owned, which of itself lowers the risk.

#### Traffic Volatility and Business Risk

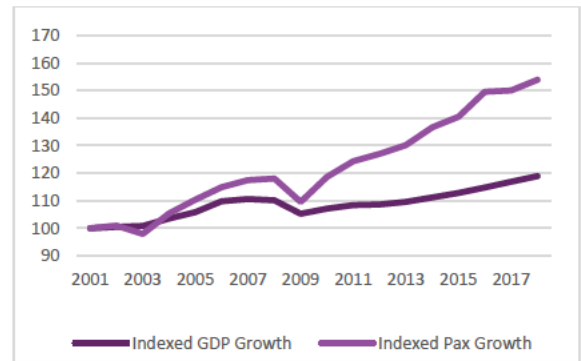
- 8.21 We understand that daa claims that Dublin is subject to higher volatility than other airports and, hence, a higher Asset Beta should be applied. We have analysed traffic at Dublin Airport over the period since 2001 in comparison to London Gatwick, Manchester Airport, Brussels Airport and Copenhagen Airport in **Figures 8.4-8.8** below. Given the extent to which air traffic growth is driven by underlying GDP/economic performance, we have looked at the extent of volatility compared to GDP. It would clearly be unfair to penalise users for volatility driven by general economic factors as this will have impacted on airline yields and the market more generally. The key question is whether there is evidence that the performance of Dublin Airport shows more underlying volatility than the norm.
- 8.22 **Figure 8.4** shows that Dublin Airport has, most of the time, achieved passenger growth in line with Ireland's GDP growth, although it is notable that, in the period prior to the recession growth was higher due to the lower airport charges then in force which led to growth in particular by Ryanair. The downturn does not reflect structural volatility in Dublin Airport's traffic as it was a product of the global recession compounded by conscious decisions by daa to increase charges, albeit sanctioned through a Determination, and the Government to increase to impose taxes. The effect of these conscious decisions do not represent underlying volatility as they were within the control of the Airport and its Shareholder.
- 8.23 In overall terms, traffic growth at Dublin has primarily been driven by GDP growth and there is no evidence in the traffic behaviour that the business risk (systematic risk) is higher at Dublin Airport in comparison to its peers (**Figures 8.5-8.8**). This means that there is no requirement to adjust the Asset Beta for business risks primarily driven by GDP growth as to do so would be unfair to users.



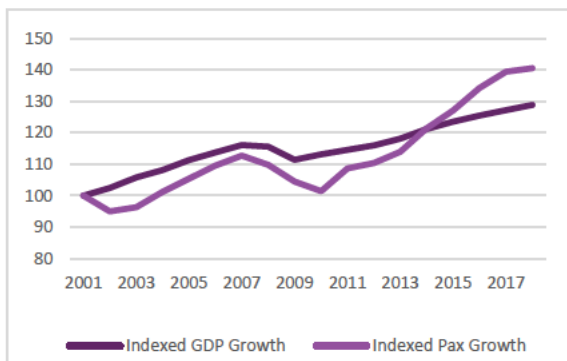
**Figure 8.4 - Traffic Growth at Dublin Airport vs Ireland GDP Growth**



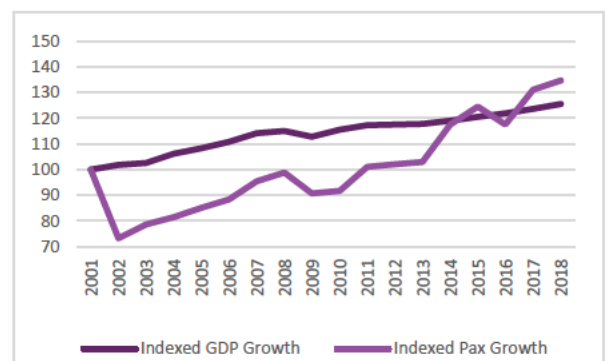
**Figure 8.7 - Traffic Growth at Copenhagen vs Denmark GDP Growth**



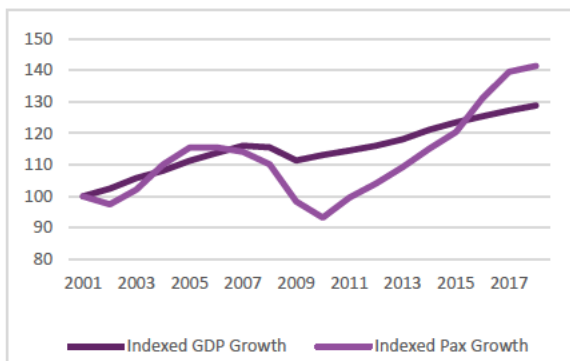
**Figure 8.5 - Traffic Growth at Gatwick Airport vs UK GDP Growth**



**Figure 8.8 - Traffic Growth at Brussels Airport vs Belgium GDP Growth**



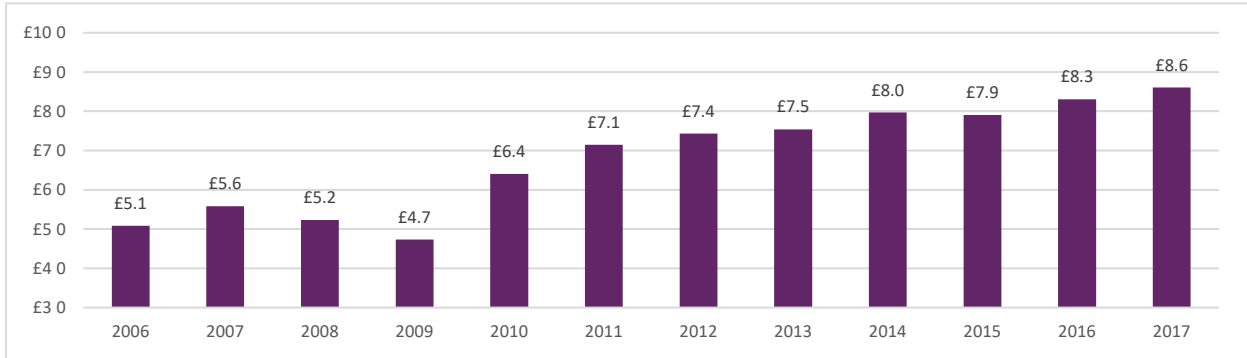
**Figure 8.6 - Traffic Growth at Manchester Airport vs UK GDP Growth**



Source: daa annual reports, CAA, Brussels Airport statistics, Copenhagen Airport statistics & IMF

8.24 Further analysis of the Airport’s business risks suggests that Dublin Airport has also achieved strong and steady growth in profitability (EBITDA per passenger), from a pre-recession peak of around €5.6 to around €8.6 in 2017, a 70% growth in the past 11 years. This can be seen in **Figure 8.9** below. Again, this suggests there is very little reason to consider daa as being more volatile than the norm.

**Figure 8.9: EBITDA per pax at Dublin Airport**



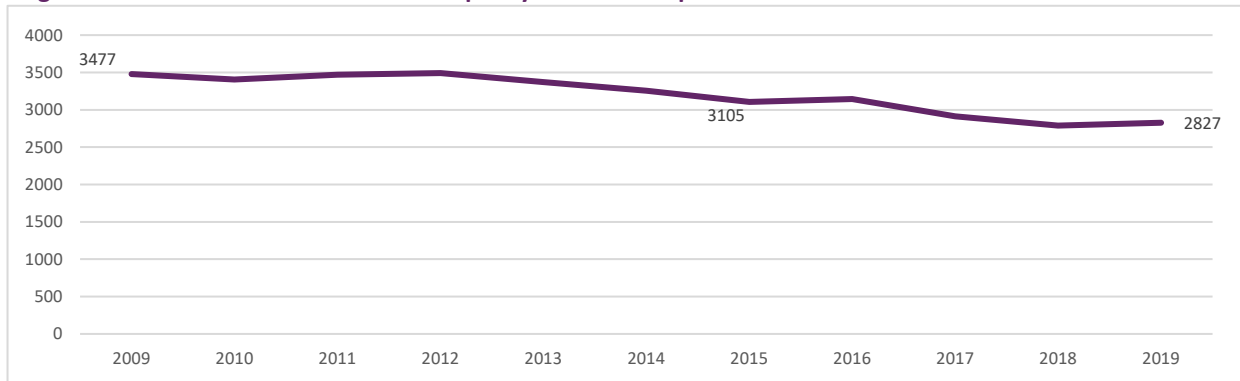
Source: daa Regulatory Accounts

8.25 Whilst there is little evidence to suggest that Dublin Airport has been subject to more traffic volatility risk in the past than its peer airports, there are also a number of other contributing factors as to why the volatility risk going forward should be less than in the past:

- ➔ the airline concentration at Dublin Airport;
- ➔ the geographic market coverage of the Airport.

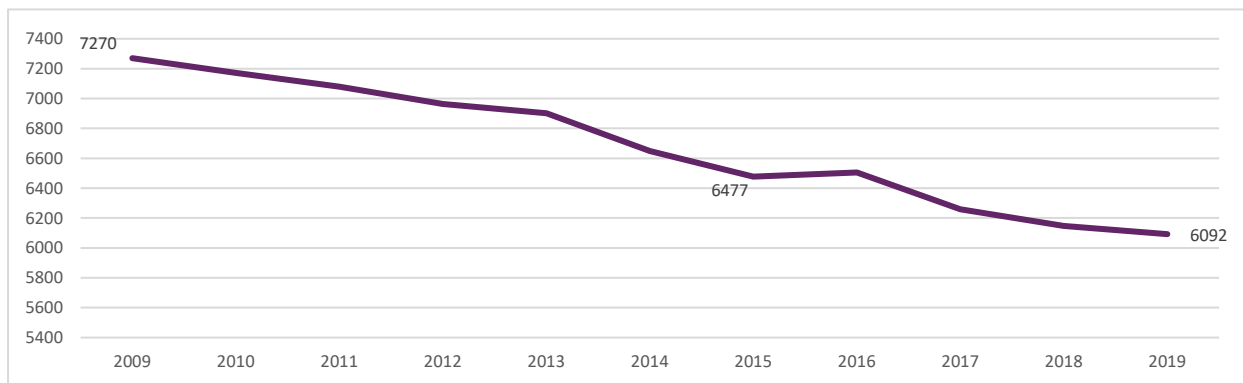
8.26 We have used the Herfindahl-Hirschman Index (HHI), a commonly used methodology, to analyse the evolution of the two risk factors over time using seat capacity data from OAG between 2009 and 2019. The index is a measure of the size of a firm in relation to the industry and the amount of competition that exists in the industry. This is derived by aggregating the squares of the market shares of each company in the industry. In this case, the airlines and their respective seat capacity at Dublin Airport are considered each year. The index ranges between 0 and 10,000 with a score closer to 10,000 indicating a high market concentration and a score closer to 0 indicating a highly competitive market. The results are set out in **Figure 8.10** below:

**Figure 8.10: HHI Index on Airline Seat Capacity at Dublin Airport between 2009-19**



Source: OAG & York Aviation Analysis

8.27 As can be seen, the index has dropped from 3477 in 2009 to 2827 in 2019, which indicates a diversification of the airline market at Dublin over the last 10 years, reducing risk for the Airport from any one of its individual carriers. The effect of diversification is also illustrated in **Figure 8.11** below, an adapted version of the HHI but for geographic concentration by world region. The Airport is becoming less reliant on Europe as its core market, reducing its exposure to this single market and reducing risk. This also reduces the impact of any Brexit related risks, which are dampened, in any event, given the extent to which a high proportion of the traffic is ‘Visiting Friends and Relatives’ related and less susceptible to any economic effects. In terms of geographic diversity, the index here has slowly dropped from 7270 in 2009 to 6092 in 2019, which has been due to the growth in seat capacity to Central and Eastern Europe, North America, the Middle East and Asia.

**Figure 8.11: HHI Index on World Region Seat Capacity at Dublin Airport between 2009-19**

Source: OAG & York Aviation Analysis

- 8.28 Overall, we believe that the reduced traffic volatility in relation to GDP, the stable improvement in profitability, increase in airline competition and a growth in seat allocation to other regions have all contributed to a reduced business risk at Dublin Airport. This is also seen in daa's recent credit rating affirmation from S&P, where the agency has rated the group's business as "*strong*", i.e. low risk.

### Recommendation

- 8.29 Based on more relevant equity betas of only listed European Airports and a brief analysis on business risk indicators, we estimate an asset beta of 0.40, which translates to an equity beta of 0.75. We do not believe that there is evidence of any greater volatility at Dublin Airport so as to justify a higher risk being applied to the Beta.

### Cost of New Debt

- 8.30 Our understanding from the Swiss Economics Report is that the cost of new debt is estimated using average bond yields of comparable airports (namely Amsterdam Schiphol, Aeroports de Paris and Sydney Airport), a premium for Irish utility bonds trading over and above average European utility bonds and a forward-looking adjustment of these estimates.

### Comparator Airport Bond Yields vs Coupons

- 8.31 Swiss Economics has placed a heavy emphasis on bond yields, rather than the coupon payments. Bond yields are a relative measure of the market price to coupon rate (a return measure for the investors). Irrespective of the yield, the coupon rate is still the agreed rate the airport/company borrows at. There has been no analysis of real coupon rates which the airports are paying. Alongside the risk-free rate and the bank base rates, the coupon rates have also been dropping over time.
- 8.32 Other comparators like Heathrow (A-), Gatwick (BBB+) and Manchester Airport Group (BBB+) have raised bonds in public markets. Also, AENA (airports of Spain) has raised a private facility at a nominal rate of just 0.69%. We believe the cost of debt of these bond issuers should also be taken into account to cover the European Airports, so providing a better indication of the cost of debt.

### Forward Yields

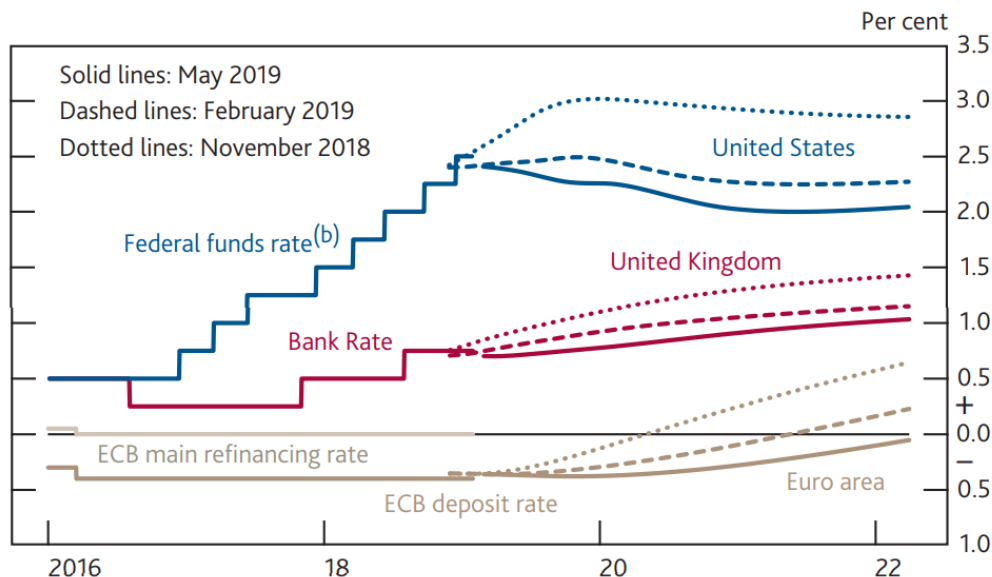
- 8.33 It is important to understand the definition of forward yields. The formula takes into account the spot rates at two different time periods and the time lapse between them, which, as mentioned by Swiss Economics, reflects market expectations about the future yields. We are concerned that, if estimated market expectations are used to forecast future yields instead of considering factors that affect the future demand and supply conditions for these bond rates to change, this will inflate forward yields as per the bond curve. Factors like macroeconomic conditions, sovereign credit rating, daa's prospects, central bank base rates, etc. should be considered instead of forward estimating bond yields from past data.

- 8.34 We recommend using ECB forecast rates as debt is usually priced around these base rates, assuming an airport's cashflow generating ability remains and the credit rating remains the same. In its recent press release (April 2019) regarding the monetary policy decisions, it was noted that:

*"At today's meeting the Governing Council of the European Central Bank (ECB) decided that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 0.00%, 0.25% and -0.40% respectively. The Governing Council expects the key ECB interest rates to remain at their present levels at least through the end of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term."<sup>57</sup>*

- 8.35 It is also worth noting that the most recent macroeconomic forecasts for the Euro area (6th June 2019) indicate inflation only reaching 1.3% in 2019, 1.4% in 2020 and 1.6% in 2021<sup>58</sup>, combined with a downward forecast in real GDP growth rates for 2019-2021 meaning that presently there are no signs of an interest rate hike in the short run.
- 8.36 We also believe that it is relevant to provide an updated view on the international Central Bank Rate expectations (See Figure 8 in the draft Swiss Economics Report) as they have fallen remarkably since the update in November 2018, by around 0.6%, see **Figure 8.12**:

**Figure 8.12 - Updated central bank expectations on interest rates**



Source: Bank of England calculations on Bloomberg Data<sup>59</sup>

- 8.37 Whilst we understand there could be a risk of a rate hike, an uptick of 47-66bps as proposed by Swiss Economics seems far too high to compensate for that premium. Rate hikes would most probably be done only at a margin of around 25-50bps and this would be a more reasonable basis to use in the Determination

### Recommendation

- 8.38 A future interest rate hike could potentially increase the cost of debt. Assuming a 0.25 to 0.50% hike, it would be reasonable to assume a 0.25 to 0.50% increase in cost of debt as the maximum that should be considered.

<sup>57</sup> ECB, <https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.mp190410~3df2ed8a4c.en.html>.

<sup>58</sup> <https://www.ecb.europa.eu/pub/projections/html/index.en.html>

<sup>59</sup> <https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2019/may/inflation-report-may-2019.pdf>

## Transaction Costs

8.39 We note that the Draft Determination has cited the use of daa’s bank margins on actual debt and has set an uptick of 50-60 basis points. We believe that this assumption fails to recognise the actual position in terms of the cost of issuing new debt and maintaining existing debt. Some key issues with this approach are:

- Firstly, we observe that the decision was based on the actual cost of embedded debt, which, by no means represents the notional cost of embedded and new debt;
- We believe the bank margin on the 2028 bond significantly increases the weighted average to 0.56%. Previously, loans from EIB were funded at a rate of [REDACTED] – there may be actual evidence from Dublin Airport's most recent EIB loan;
- The implied issuance cost of 50-60bp accounts for over 80% of the lower bound and around 60% of the upper bound estimated cost of debt, which seems unreasonable as the majority of the cost of debt goes towards transaction costs;
- PwC in its recent WACC estimate for HAL uses a 10bps (0.1%) estimate for the cost of issuing new debt and liquidity costs of embedded debt based on the following evidence:
  - Europe Economics, commissioned by Ofwat (PR19), analysed these margins in the water sector. It was found that, on average, for issuances between 1993-2017, the average cost of issuing debt was 5bps, reducing to 3bps after 2000 (see **Figure 8.**).
  - In estimating the cost of maintaining existing debt, i.e. cost of liquidity, Europe Economics analysed the cost of revolving facilities. It was found that the cost of undrawn credit facilities ranged between 35-45bps. On average, it was also assumed that firms only have around 10% of the value of their debt in undrawn credit facilities, implying the cost of liquidity would only be around 3.5-4.5bps.
  - By adding the average margins and the cost of liquidity above, Europe Economics estimated that a range of 6.5bps to 10.5bps with a point estimate of 10bps.

**Figure 8.13 - Debt Issuance Costs<sup>60</sup>**

Company	Overall number of issues	Average issuance cost — overall (bps)	Average issuance cost — after 2000 (bps)
AFW	2	3.22	3.22
ANH	11	12.18	3.25
NWL	4	4.65	2.87
SVT	7	3.60	4.12
SEW	1	1.50	1.50
SSC	2	3.26	3.26
TWUL	15	3.43	3.28
UU	18	3.70	3.18
WSX	6	2.42	2.21
YKY	6	2.20	1.97
<b>Average</b>	<b>72</b>	<b>4.68</b>	<b>3.05</b>

Note: The averages here are defined with respect to all debt issues rather than being an average of company averages.

Source: Bloomberg, LSE, ICE, Europe Economics’ calculations.

Source: Europe Economics, PR19 — Initial Assessment of the Cost of Capital

8.40 We, therefore, do not see any strong evidence for a notional company having a cost of issuing new debt and maintaining existing debt going above 10bps and believe that a range of 50-60bps only demonstrates financial inefficiency for which users should not be required to pay, considering the technological change, capital markets competitiveness and financial efficiency driven by the dropping cost of debt. The magnitude of cost of debt issuance should be marginal to the cost of debt rather than a multiple and should demonstrate efficiency in a notional company, not the nominal embedded costs borne by daa.

8.41 It is worth noting that daa has also recommended transaction costs between 20-30bps, far below the 50-60bps estimate made by Swiss Economics, strongly suggesting this is an overestimate.

<sup>60</sup> <http://www.europe-economics.com/publications/europe-economics-final-report.pdf>

### Recommendation

- 8.42 Our recommended range for transaction costs is between 10bps and 30bps with a point estimate of 20bps, taking into account the cost of debt issuance suggested by daa.

### Investment Grade Credit Rating

- 8.43 We understand at present, the CAR is statutorily required to enable the financial viability of Dublin Airport, allowing the Airport to raise debt at a reasonable cost. We have discussed the issue in the previous section. We believe a 1-year average, or a 2-year average is too short a time frame to estimate the spread on bond yields for a 5-year determination period as it places heavy weighting on short term fluctuations that are not reflected in the longer-term horizon. We believe the 5-year average of 5bps is more appropriate, as it covers the positive and negative volatility observed in these markets over a longer and more appropriate time period.
- 8.44 We also understand that the CAR has added a separate adjustment to the price cap via depreciation, making it a double adjustment to ensure the financial viability of Dublin Airport. As we discuss in the previous section, we see no case for a financial viability adjustment over and above the establishment of an appropriate cost of capital.
- 8.45 In any event, the introduction of an arbitrary depreciation adjustment simply leads to a growing disconnect between actual depreciation and regulatory depreciation, with the gap widening over time. This serves to reduce the transparency in the calculation of the price cap and reduces the level of trust in the regulatory process overall due to the divergence between actual and regulatory financial requirements.
- 8.46 Our Recommendation for an Investment Grade premium is:
- to use either a cost of debt premium or a price cap adjustment but not both;
  - to discount or, at the very least, further review the financial viability assessment before making any decision on whether an adjustment is required; and
  - if a debt premium is considered, then a 5bps (or 0.05%) spread is the most appropriate as it covers a 5-year time period.

### The Issue of Double Counting Debt Premiums

- 8.47 There have been premiums added on to the cost of debt that we believe are double counted as they have used the same data source on multiple occasions. This is seen in the spread between Irish and European bond yields and the notional investment grade credit rating. We believe that the premium added on for estimating the investment grade credit rating also covers the premium for Irish companies, as the dataset takes into account both the Irish and European utility bonds. We urge the CAR to carefully study these calculations to ensure that they are not double counting risk premiums.
- 8.48 Although we acknowledge a difference in yields between Irish and European utilities, as our own analysis of the coupon rates on the bonds in this sample suggest that Irish Utilities pay a higher margin than its European counterparts, we still believe this premium should be combined with the premium for an investment grade notional company.

### Recommendation

- 8.49 We believe that it is appropriate to use the higher estimates of both classifications as one range to would cover the premiums for Irish bonds over European bonds and investment grade credit ratings, which ranges between 5bps to 18bps.



## Weighting of Embedded and New Debt

- 8.50 In the light of favourable debt market conditions, we would expect a notional company would not only choose to finance the capacity expansion using newly financed debt but would also seek to refinance its existing debt to reduce its own cost of debt and improve its financial viability. Irrespective of what the daa group choses, we believe the potential requirement for new debt could be higher than 33%. We, therefore, recommend a weighting of embedded debt to fall to 50%.
- 8.51 It is also worth noting that around 25% of daa group's existing debt is due within the next five years. This would raise the proportion of new debt considerably higher, even if the existing debt is refinanced or repaid.

## Cost of Debt Recommendation

- 8.52 We estimate the cost of debt to range between 0.40% and 1.00% with a point estimate of 0.82%. We have treated all the debt premiums separately after calculating the unadjusted weighted cost of debt. We have used a higher estimate in implementing the premiums for the uptick for notional rating and recent regulatory precedent (**Table 8.4**)<sup>61</sup> to compensate for any under estimation and to an extent protect Dublin Airport from market changes in the cost of debt.

**Table 8.4 - Cost of Debt estimate**

	Lower Bound	Upper Bound	Point Estimate
Embedded Debt	0.00%	0.04%	0.02%
New Debt	0.30%	0.60%	0.45%
Weighting of Embedded Debt	50%		
Unadjusted cost of weighted debt	0.15%	0.32%	0.24%
<b>Debt Premium</b>			
Transaction Cost	0.10%	0.30%	0.20%
Uptick for notional BBB credit rating and premium for Irish bonds	0.05%	0.18%	0.18%
Uptick for regulatory precedent	0.10%	0.20%	0.20%
<b>Cost of Debt</b>	<b>0.40%</b>	<b>1.00%</b>	<b>0.82%</b>

## Aiming Up

- 8.53 The Draft Determination adds an aiming up to the WACC of 0.5%, citing regulatory precedent and the UKRN recommendation on setting the WACC to the 90<sup>th</sup> percentile for new investments.
- 8.54 Our initial view remains that the business risk of Dublin Airport, supported by the strong growth in the Irish economy, combined with our lower cost of capital estimate, indicates that the true WACC of 3.49% is not underestimated and, hence, in principle, does not require an aiming up. This view is reinforced by the belief that there are other areas where the Draft Determination is favourable to Dublin Airport, specifically in relation to the quantum of capex allowed and in the lenience towards achieving operational efficiency. Hence, we do not believe that there is any justification for any further additional aiming up adjustments in the price cap. We would hold this view even if the other adjustments we propose are made to capex, opex and commercial revenues.

<sup>61</sup> Table 40 in the Swiss Economics draft highlights the regulatory precedent cost of debt adjusted to the risk-free rate.

- 8.55 Our estimate for the cost of debt already incorporates aiming up via estimated premiums and, in some cases, we have used the upper end of these estimates. For reference, it is worth noting that the Irish government has a credit rating of A+, although two notches higher than daa (A-), but still in the same group of 'single A'. We, therefore, believe that the real cost of debt should only be marginally higher and close to the coupons paid on newly raised Irish government bonds. It is already known that, since 2015, the National Treasury Management Agency (NTMA) have issued €60bn in medium long-term notes at an average rate of 1.1%<sup>62</sup>. Converting this nominal rate to real would significantly reduce the real cost of debt. We, therefore, believe that our estimated cost of debt already reflects any uncertainty by the additional premiums that are treated separately to the embedded and new debt within our estimates.
- 8.56 We also know that daa is a state-owned entity, which means that the nature of daa's ownership structure increases the chances of achieving a government guarantee on future debt – this is implicit within the process of securing the most recent EIB loan as discussed earlier in this Report. A guarantee from the A+ rated Irish Government would not only reduce the risks but also assist in supporting loan repayments in the event of daa being unable to repay its debt, which could be a positive sign amongst lenders.
- 8.57 On closer examination, point 224 in the Swiss Economics Report states that, for new investments to be incentivised, the WACC on new investments must be set above the 90<sup>th</sup> percentile and for sunk investments, UKRN argues that the point estimate of the true WACC is enough. This means that, to the extent necessary at all, any aiming up is only needed for new investments and not on the entire RAB. As an example, we have carefully identified the 90<sup>th</sup> percentile WACC of 4.06% from the initial range and have produced a re-weighted WACC to apply on to the RAB, to show us the aiming up required to incentivise new investments and yet maintaining a point estimate WACC on sunk investments. This can be seen in **Table 8.5** below:

**Table 8.5 - Estimate on Aiming Up**

	Amount (€ bn)	% Weight in the RAB	WACC
Existing RAB (2017)	1.526	41%	3.49%
CIP	2.2 <sup>63</sup>	59%	4.06%
Total	3.726	<b>Weighted Average %</b>	<b>3.83%</b>

**Maximum Aiming up 0.34%**

Source: UKRN (2018) and York Aviation Analysis

- 8.58 This analysis suggests that, even in the eventuality that all other adjustments are made to the building blocks in the Determination, the aiming up allowance should be no more than 0.34% and, in reality, this should be at the very top end of any range considered. As explained in Section 6, it is unlikely that the full capex allowance is needed or would be expended within the next quinquennium. Hence the weight of the CIP in the calculation above is likely to be too high and it should be recognised that the expenditure will not enter the RAB as a 'lump' at the beginning of the period. Furthermore, our assessment is based on the historic RAB rather than that which will apply at the start of the next regulatory period.

**Recommendation:**

- 8.59 As described above, we do not ultimately believe that any aiming up is required. However, if the CAR chooses to follow that path, an aiming up range of 0%-0.3% is recommended and we would suggest an actual allowance towards the bottom end of that range at around 0.1%.

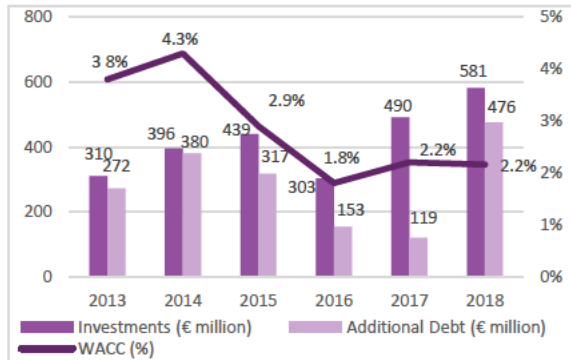
<sup>62</sup> Source: <https://www.ntma.ie/uploads/publication-articles/Investor-Presentation-May-2019.pdf>

<sup>63</sup> €2.2bn approximately, calculation for demonstration purpose only.

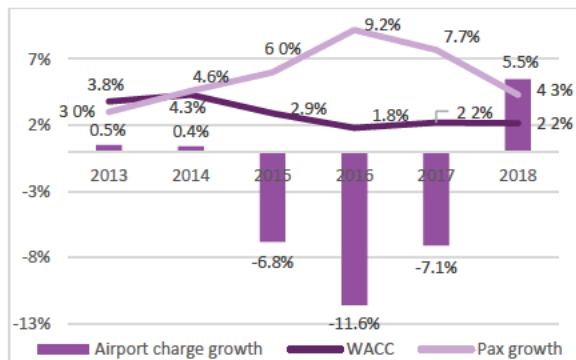
### WACC Case Study: Schiphol Group (Amsterdam)

- 8.60 We have identified Amsterdam Schiphol Airport (Schiphol Group) as an important comparator for Dublin Airport due to its ownership structure and its current delivery of a new terminal and a pier, which is due to open in 2023 adding 14 million in passenger capacity.
- 8.61 Over the years, the Airport has also been faced with one of the most updated WACCs in its airport charges due to it being recalculated each year prior to 2019. This case study briefly looks into the trend in WACC and the Group’s subsequent impact on passenger charges, passenger growth, investments, borrowing activity, financial returns, dividends and overall financial viability, all summarised in **Figures 8.14 to 8.17**.

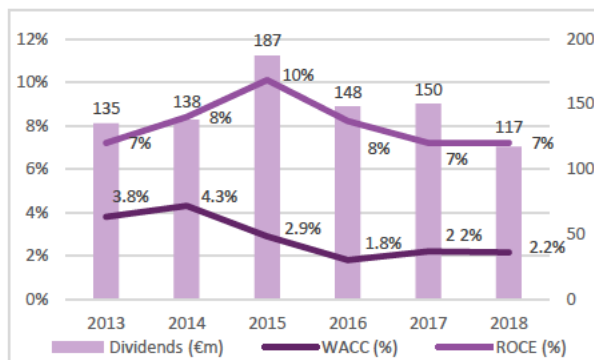
**Figure 8.9 - WACC, Charges and Passenger Growth as Schiphol**

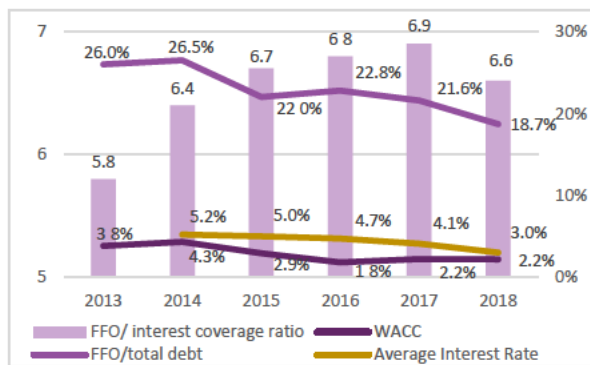


**Figure 8.10 - Annual WACC, Investments and Additional Debt**



**Figure 8.11 - WACC, Return on Capital Employed & Annual Dividends**



**Figure 8.12 - Annual WACC and Financial Viability Ratios**

Source: Schiphol Group Annual Reports 2013-2018

- 8.62 **Figure 8.14** shows that the WACC has been dropping from 4.3% in 2014 to 2.2% in 2018, with the lowest being 1.8% in 2016. The drop in the WACC directly contributed to the reduction in airport charges which helped boost passenger growth of around 6% on average. The growth in passengers has to a large extent, help translate to a Return on Capital Employed of over 7% each year. Schiphol Group have also issued dividends to the state of over €100m each year.
- 8.63 At Amsterdam, the terminal construction project began in 2018 and the Airport Group has shown no signs of slowdown in investments and additional borrowing. In fact, Schiphol Group have invested over €2.5bn since 2013 and have comfortably borrowed on average over €280m each year, despite issuing such large dividends each year. This shows that the drop in the WACC has not deterred the group from making necessary investments.
- 8.64 In regards to financial viability measures in **Figure 8.10**, we can clearly see that the interest coverage has improved from 5.8x in 2013 to 6.5x in 2018, which has been largely due to the group borrowing and refinancing debt at lower rates, helping them achieve an average interest rate of 3% in 2018 down from 5.2% in 2014. This has allowed the Group to improve its short-term liquidity by allowing more free cashflow available for debt servicing. Although the FFO/Total debt has dropped from 26% in 2013 to 19% in 2018, which has been due to the amount of debt raising activity undertaken since 2013 (€1.8bn). The Group still enjoys a credit rating of A+.
- 8.65 Going forward, the Airport currently has a three-year WACC of 2.71% for 2019-2021, set by the regulator.

### Conclusion on the Cost of Capital

- 8.66 We estimate a realistic Cost of Capital for Dublin Airport for the period between 2020-2024 would be between 2.00% and 3.10%, with a point estimate of 2.95%. We believe that this range takes into account a more appropriate TMR and ERP and ensures consistent timeframe between the TMR and RFR. The range also incorporates a Beta value that covers European listed airports without inconsistent dataset from regulatory precedents set in 2014/16 and Airports from continents outside Europe. To maintain consistency, we have used the same RFR as the Swiss Economics estimate.
- 8.67 Our cost of debt estimate adds the embedded debt costs and new debt costs and treats the debt premiums separately on top of the weighted cost of debt. We carefully consider the debt premium and add upticks that can potentially protect the Airport from future market movements by adding a central bank rate hike of 0.25% to 0.5%, a premium for notionally efficient credit rating and transaction costs.
- 8.68 To summarise, there is enough evidence stating that equity market returns have been dropping in recent years due to the change in risk appetite and availability of substitute markets and the cost of debt has significantly dropped in the Eurozone area which together leads to a drop in the cost of capital, which is observed not just in Airports but also other industries. This is also observed in S&P's ratings report, as this drop in the WACC is not uncommon:

*“We expect CAR will lower the cap on aeronautical tariffs for the 2020-2024 regulatory period following better-than-expected performance in the 2015-2019 regulatory period, but also to reflect the lower cost of capital due to prevailing low interest rates, the low expected risk free rate, and equity returns. We note that macroeconomic factors are contributing to the lowering of WACC for many regulated entities across various sectors in Europe.”<sup>64</sup>*

- 8.69 Although there is enough evidence for a WACC below 3%, we have allowed for various upticks in the cost of debt that covers debt premium and implemented average of high estimates of the range ERP estimate using short- and long-term returns. We believe these upticks reduce the need for aiming up, unless the true cost of capital at the lower end is used (i.e. 2.00%).

**Table 8.6 - Ranges and point estimates for individual WACC components**

	<b>SE*<sup>65</sup> Range</b>	<b>SE Point Estimate</b>	<b>YAL Range</b>	<b>YAL Point Estimate</b>
<b>Gearing</b>	45%-55%	50%	50%-60%	50%
<b>Tax Rate</b>		12.50%		12.50%
<b>RFR</b>	-0.72% - 0.45%	-0.14%	-0.72% - 0.45%	-0.14%
<b>TMR</b>	6.05%-6.8%	6.43%	-	-
<b>ERP</b>	6.19%-6.94%	6.56%	5.00%-5.60%	5.60%
<b>Asset Beta</b>	0.43-0.46	0.45	0.40-0.40	0.40
<b>Equity Beta</b>	0.81-0.86	0.84	0.75-0.75	0.75
<b>Cost of Equity</b>	4.75%-5.94%	5.38%	3.03%-4.65%	4.50%
<b>Cost of Debt</b>	0.65%-1.04%	0.85%	0.4%-1.00%	0.82%
<b>True WACC</b>	<b>2.8%-4.2%</b>	<b>3.49%</b>	<b>1.7%-2.8%</b>	<b>2.80%</b>
<b>Aiming up</b>		0.50%	0%-0.30%	0.10%
<b>Total WACC</b>		<b>3.99%</b>	<b>2.00%-3.10%</b>	<b>2.90%</b>

- 8.70 We do not consider that there is any justification for deviating from these conclusions on the grounds of inherent business risk or volatility at Dublin Airport.

<sup>64</sup> S&P Global: Research Update: Irish Airport Operator daa PLC Outlook Revised To Stable On Expected Lower Tariffs; 'A-' Rating Affirmed

<sup>65</sup> Swiss Economics (SE)

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## 9. Conclusions

- 9.1 Our comments on the Draft Determination should be seen in the round. In particular, the Cost of Capital is, to a large degree, a function of assumptions about business risk and about the scale of cost that Dublin Airport faces for the next 5 years which lead to an increase in borrowing requirements. If the levels of capex expenditure are reduced, as we believe they should be, the borrowing requirements would be reduced, with a consequential reduction in borrowing costs and risk.
- 9.2 As we have noted, over and above any overarching risks to Irish economic performance, the passenger projections underpinning the Draft Determination are low risk. Nor is there any evidence that Dublin Airport is inherently subject to greater business risk than other airports so as to justify any an adjustment to the Cost of Capital on these grounds.
- 9.3 To a large degree, the current WACC proposed is a reflection of the extraordinarily large capital programme proposed by Dublin Airport and the high levels of opex. Both of these are set at an unjustifiable level and should be reduced. The approach to commercial revenues also provides an insulating mechanism for Dublin Airport as, as it has been demonstrated in the last quinquennium, Dublin Airport's ability to deliver faster than assumed commercial revenue growth has provided a cushion which serves to reduce risk. If properly allowed for in the Determination, this would both reduce the price cap, even without any adjustment to Cost of Capital, and justify a downward adjustment to the WACC reflecting higher revenue earning potential.
- 9.4 Fundamentally, the opex allowance proposed is unjustified. Dublin Airport has failed for over 10 years to address its high legacy staff costs. Although past Determinations have set opex targets aimed at incentivising the Airport to address the issue, no progress has been made. It is unacceptable for the CAR to continue to allow Dublin Airport time to address these issues and the excess cost should now be placed entirely at the Airport's risk and not passed to users even for part of the next quinquennium.
- 9.5 It is important to recall that a Determination is as much a regulatory commitment to users as it is to the airport operator. Hence, if it is appropriate to allow Dublin Airport to retain the benefit of increased commercial revenues for at least a period into the next quinquennium, then users have a similar expectation that the CAR will enforce previous decisions relating to the excessive levels of opex and make an immediate downward adjustment to an efficient level.
- 9.6 In terms of the level of capex proposed, the level of expenditure is unprecedented, and we have strong doubts as to Dublin Airport's ability, in practice, to expend this amount during the next quinquennium, not least given the planning risk. In any event, the evidence would suggest that a material amount of the programmed works are premature or over-scoped such that the initial amount assumed to be allowed into the RAB during the quinquennium can be reduced. In addition, contingency allowances should be reduced downwards to reflect that not all of the contingency allowances would need to be fully spent across the programme as a whole.
- 9.7 Subject to these adjustments to capex being made at the outset, the introduction of a StageGate process would be beneficial to users as it would leave the remainder of any capex allowance to be confirmed through a formal 'constructive engagement' process, supported by an IFS. The benefits of this process would be substantially negated if the full amount of capex was allowed into the RAB as setting up a costly within quinquennium review process would deliver no real benefit if the only effect was to adjust the opening RAB at the start of the next quinquennium as users would already have paid in advance for unnecessary or over-scoped schemes. The benefit from a StageGate process arises by making a material part of the capex cost that the Airport would like to spend subject to a within quinquennium verification and agreement process. Provided the StageGate process is adopted on this basis, it would greatly assist in both ensuring capex efficiency and in ensuring that Dublin Airport is properly motivated to engage appropriately with its users on capex requirements project by project on an ex-ante basis, something which it still does not appear to achieve.

- 9.8 Another important issue is in respect of commercial revenues, over and above the general ability of daa to exceed the targets set, there are specific Commercial projects identified and proposed for inclusion in the RAB that have major revenue earning potential. The impact of these projects is substantial - of the order of €22.35 million a year in Year 5 otherwise there would be no business case for the investments to be made. It is a significant omission that no allowance has been made for the revenues that are projected to be earned from the specific Commercial projects within the CIP as part of the commercial revenue estimates. The increased revenues from these projects, which it is proposed to allow into the RAB, would generate an uplift in commercial revenue 3 times that proposed to be assumed within the Draft Determination. Hence, the commercial revenue assumptions need to be revised upwards by a substantial amount to reflect the effect of such projects, otherwise the capex should not be allowed. Failure to make these adjustments would leave users paying for the projects but not realising any of the benefits within the quinquennium.
- 9.9 Finally, it is important to remember that regulation is supposed, as far as possible, to incentivise the airport operator to replicate competitive market behaviours. In relation to the use of the 'K' factor to allow Dublin Airport to recover previously granted incentive and rebate amounts from users, this is a practice that is inconsistent with the behaviour of an airport operating in a competitive environment and, in any event, is a practice not consistent with regulatory decisions taken elsewhere.





## Appendices

Appendix A: Extract from MMC Report on Manchester Airport 1997

Appendix B: Extract from CAA Report on Manchester Airport 1997

Appendix C: Extract from MMC Report on Manchester Airport 2002

Appendix D: CIPD Health & Wellbeing at Work, Appendix 2, April 2019

Appendix E: List of Capital Projects





# Manchester Airport plc

A report on the economic regulation of Manchester Airport plc



# **Manchester Airport plc**

A report on the economic regulation of Manchester Airport plc

**Presented to the Civil Aviation Authority**

**July 1997**

### *Cost pass-through items*

2.33. We referred in paragraph 2.13 to the existing arrangements for security costs. We considered the arguments put to us that more of these costs should be borne by MA or its concessionaires, and considered whether MA should be allowed to include overheads in the calculation of security costs. To pass on more of these costs to concessionaires or tenants may, however, affect the basis of the concession and net income to MA. In our view, MA should not be expected directly or indirectly to bear a greater share of such costs (including overheads) given that our approach to airport charges below is based on providing no more than a reasonable return on MA's assets. We therefore see insufficient reason to change the current approach. We refer to complaints as to inadequate transparency of information about security costs in paragraph 2.115.

2.34. MA suggested the pass through of all land compensation costs resulting from the second runway and other developments, that could arise following determination by the Land Tribunal of any relevant test case. Currently some £7 million of such costs are included in MA's projections for Q3, but both the amount and timing are highly uncertain and, MA argued, outside its control, and ultimately subject to determination by the Land Tribunal. We believe it appropriate to exclude that amount from the projections but, in order to provide an incentive on MA to contest any claims and minimize the costs incurred, to allow only 95 per cent of costs following any determination of any relevant test case to be recovered by means of a cost pass-through term.

### *Air traffic control costs*

2.35. Air traffic control services at the airport are currently provided under contract to MA by National Air Traffic Services (NATS), but there are a number of other potential operators of such services; the costs are currently included in airport charges. The air traffic control arrangements currently cost about £[\*] million a year, a revised contract with NATS having led to a gain of over £[\*] million a year to MA since the last review. A number of airlines suggested that air traffic control services at the airport should be separately charged, to improve transparency and allow users to share in the cost savings made by MA. MA said that it had no objection to transparency of these costs, as long as NATS did not regard the information as confidential or to its disadvantage in competing for business at other airports. Although, in our view, publication of such costs would seem sensible, we regard this as a matter for MA and NATS. We view the cost savings obtained from the current contract with NATS as no different from other cost savings, increasing MA's profitability in the short term, but a source of lower charges to users following the next regulatory review. Any direct charging of air traffic control costs, separate from the RPI-X formula (and which would require an adjustment of the formula), would reduce the incentive to bring about further cost savings. We have therefore continued to include projected air traffic control costs in the cost base on which our recommended level of airport charges is based.

### *The definition of revenues*

2.36. Finally, in the context of the revenue formula, we considered whether the allowed revenue per passenger should be determined before deduction of any marketing incentives or any payments under SLAs should these be agreed. MA told us that revenues are calculated net of introductory discounts on landing charges for new services, which are made available to all users at a rate of 60 per cent in the first year and 30 per cent in the second year, but no other

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\*Figures omitted. See note on page iv.

discounts are deducted from revenues. The availability of the introductory discounts for new services is referred to in MA's terms and conditions as being at the company's discretion but the amounts are not explicit: MA said that it was prepared to make those amounts explicit in future publications of its fees and charges. The value of such introductory discounts in 1996/97 was some £1.33 million, and MA told us that, based on its own assumptions, it did not expect this sum to increase significantly. Other individually negotiated discounts off charges are treated as costs, and, MA said, cannot be taken off income. These are therefore treated like sales promotion expenditure, as a cost, rather than a reduction of revenues. This was broadly confirmed by the CAA. It would, in our view, seem reasonable to allow published, non-discretionary discounts (ie available equally to any airline meeting predetermined conditions) to be netted off regulated income and to be regarded as an aspect of charging structure. It would be open to any airline to complain to the CAA if any such discounts were discriminatory. To reduce stated revenues by the amount of other, unpublished or discretionary, discounts, however, would reduce actual overall yield, and allow revenues to other users to be increased. Given the extent of under-recovery to date, the treatment of such discounts or rebates has not previously been an issue, but, in our view, there is a need for a more explicit provision that unpublished or discretionary discounts or rebates should not be regarded as reducing actual revenues for the purpose of the pricing formula.

2.37. Any compensation payments given under SLAs should not, in our view, be offset against regulated charges, ie there should be no corresponding increase in charges to other users to finance them. MA agreed with this view.

### *Initial yield*

2.38. Regulation by reference to an RPI - X formula requires the specification of an initial revenue per passenger, consistent with the financial projections on which charges are based. The formula we have proposed below is based on the current forecast of revenue per passenger in 1997/98 of £7.22 at 1996/97 prices: the actual yield at 1996/97 prices will depend on the change in the RPI in the current year, but any divergence in yield or RPI in 1997/98 from forecast would not affect permitted yields, in real terms, in subsequent years.

### *Previous under-recovery*

2.39. We have referred in paragraph 2.19 to MA choosing to recover less than the maximum permitted amounts of airport charges in Q2. MA raised the possibility of a provision in Q3 for recovery of intended or unintended under-recovery in Q2. We see no grounds for recovery of intended under-recovery in Q2. In our view (as in the 1996 MMC report on BAA), it would be appropriate only to allow for correction in the first and second year of Q3 of any unexpected over- or under-recovery in achieved yield in the last two years of Q2: that is, that resulting from higher or lower RPI, or different degrees of dilution or concentration than expected in 1996/97 or 1997/98. That correction should be on a 'one-off' basis, so as not to affect the yield in subsequent years of Q3.

## **The value of X**

### *Financial issues*

2.40. The main financial issues relevant to setting the maximum level of airport charges are the appropriate cost of capital for MA; and the asset base to which that cost of capital should be applied. We also, however, consider in paragraph 2.78 the significance of other financial constraints in evaluating alternative values of X.



that there is limited allowance in MA's financial model for exceptional employment effects of these new additions to capacity. The opening of the second runway would not, in our view, significantly affect the above comparisons (beyond the adjustment for the 42 additional staff). Excluding the additional number of employees due to Runway 2 the reduction in staff costs per passenger at Manchester Airport would be 3.6 per cent a year, rather than the 3.1 per cent a year referred to in paragraph 2.50, still below Gatwick's projections despite higher forecast traffic growth. Nor are we convinced that BAMA would greatly affect productivity by the end of Q3 when terminal capacity is likely to be well utilized.

2.56. MA argued that it was more relevant to consider trends in staff costs per passenger than in passengers per employee. We noted that, given BAA's assumption of increases in earnings per employee relative to the RPI, MA's trend in staff costs per passenger compares more favourably with that of Gatwick. We accept that staff costs per passenger is an important indicator, particularly in considering the level of charges, but it is in turn determined both by earnings per employee and by passengers per employee. We have noted above MA's assumption that earnings per employee at the airport are likely to remain broadly unchanged relative to the RPI over Q3. In our view, the expected improvement in passengers per employee at Gatwick is indicative of the scope for improved productivity at Manchester Airport and hence the potential for lower costs that MA can reasonably be expected to achieve. Our analysis above has, moreover, been based on the improvement in efficiency put forward by BAA during our recent inquiry. In the 1996 MMC report on BAA, the MMC took the view that there was scope for somewhat lower manpower costs than assumed by BAA, resulting from improved efficiency and lower costs per employee. Although we did not allow for such lower costs in our main projections, we believed they were achievable and would be more than sufficient to cover the significant loss of revenue from removing the levy on off-airport suppliers of airline catering. We therefore incorporated them by making no adjustment for the loss of revenue deriving from these latter changes.

2.57. On the basis of our consideration of the full range of evidence presented to us, we believe it is reasonable to assume a cumulative 1.5 per cent a year reduction in staff costs per passenger, additional to the 3.1 per cent a year allowed for in MA's projections. Indeed, there may well be scope for MA to reduce costs by more than this amount.

### *Sales development expenditure*

2.58. Among other cost items, we noted MA's projections of a significant increase in marketing and sales development expenditure from an average of about £5 million over the last five years (£5.4 million at 1996/97 prices) to an average of £14 million a year over Q3 (£12 million at 1996/97 prices). MA told us that it had increased its budget for sales development expenditure in response to loss of market share in 1995 and 1996 with a marginal decline in traffic in the last year. The additional expenditure comprised, first, a Sales Development Incentive Fund, primarily of volume discounts, and secondly, a Strategic Route Development Fund providing further support for the development of 'strategic' new services, particularly long-haul services or services to capital cities, which would assist in the development of MA as a hub for scheduled services. The first, volume discounts, would only be given if additional traffic was generated in excess of 4 per cent a year, and would, MA believed, be profitable on the basis of the additional commercial income generated; the discounts for strategic services would require two to three years in each case to break even.

2.59. MA argued to us that this increase in sales development expenditure was necessary to achieve its market forecasts of 6 per cent a year growth in passenger numbers. Maintaining the historic level of expenditure of about £5 million a year would, in its view, enable it only to achieve growth of 4.3 per cent a year from 1997 to 2002, similar to the DOT's forecasts of growth of 4 per cent a year for UK airports as a whole. At these reduced levels of traffic

growth, MA argued that the development of the second runway would be placed in jeopardy, leading to difficulties in meeting the demand for air travel in the UK in the longer term. MA believed the additional sales development expenditure would benefit all airlines, both through the eventual reduction in unit costs from the generation of more traffic, and through encouraging the growth of Manchester Airport as a hub airport, with its increasing use for transfer between flights. In papers prepared for us toward the end of our inquiry, MA estimated that the additional revenue generated would exceed the additional expenditure over Q3 as a whole.

2.60. The projected increase in sales development expenditure reflects decisions taken in the period shortly before the reference to the MMC. In financial projections presented to the CAA in early October 1996, MA allowed for increased expenditure only in 1997/98 and 1998/99, expenditure then falling back to previous levels. Papers presented to the Board and the Senior Management Team in mid-October 1996 and supplied by MA to us did not project total sales development expenditure to be incurred over Q3 as a whole, and were not clear as to the traffic growth to be generated. One paper to the Senior Management Team referred to the prospect of 16 million passengers at the airport in 1997/98 if the additional expenditure was to be undertaken, a 10 per cent growth, and significantly above that assumed in MA's financial projections. The Board paper on which the decision to increase expenditure was based referred to the prospect of only 3 per cent growth in 1997/98, to 14.9 million passengers, without additional sales development expenditure. This would be increased to 15.4 million passengers from the establishment of the Sales Development Incentive Fund, while each new route generated by the Strategic Route Development Fund would add at least a further 50,000 passengers a year. None of the papers prepared at the time the decision was made which we have seen, however, could be regarded as presenting a rigorous appraisal of the costs and benefits of this strategy, or of the longer-term traffic growth to be expected with or without this additional expenditure. We were also surprised that, given the strategic importance subsequently attributed by MA to this expenditure, it did not feature in MA's first substantive submission to ourselves at the end of February 1997, even though the CAA in its submission to us in December 1996, and copied to MA at that time, had questioned the inclusion of this expenditure in the financial projections.

2.61. The traffic growth assumed by MA over the period as a whole is, moreover, a little below historic trends; we have not seen sufficient evidence to suggest that a substantial increase in marketing and sales development is necessary to achieve such a traffic forecast and see little justification for including growth in marketing and sales development on the scale put forward by MA. Given the strong support of airlines for the development of the second runway and MA's own argument that it is necessary to meet the growth in demand for air travel in the UK, we are particularly surprised at the implication (referred to in paragraph 2.59) that the development of the second runway may be in jeopardy unless demand can be stimulated by offering substantial discounts to promote traffic growth at the airport by attracting traffic from other airports (including other UK airports). We are not persuaded that more than doubling sales development expenditure, to a total spend over the quinquennium of almost one-half the capital cost of the runway, is now required to avoid the second runway being unnecessary. We have therefore assumed a more limited increase from the £5.4 million a year expenditure over the last five years, to £6 million a year (at 1996/97 prices), as sufficient to enable MA's growth forecast to be met. It would still be open for MA to undertake additional expenditure, if it was profitable for it to do so: but it is, in our view, preferable for MA to bear the risks of such a strategy, rather than that the costs be included in the cost base on which charges are based, and hence be directly borne by users irrespective of the profitability of the strategy.

### *Rent for land*

2.62. MA's projections also include a significant element of rent for land to be paid to Manchester City Council, but which is then distributed amongst all MA's shareholders in

**Economic Regulation of Manchester Airport**

**1 April 2003 – 31 March 2008**

**CAA Decision**

**March 2003**

*Civil Aviation Authority*

*CAA House, 45-59 Kingsway, London WC2B 6TE*

and transparency and equality of expenditures on selective support for specific airline users could have a serious impact on the future growth prospects at Teesside. The current levels of unpublished discounts at Manchester should be considered adequate to support future development.

5.5 Liverpool said that the CAA's proposals seriously prejudiced its ability to provide competition to Manchester and its own future. It pointed out that objectives of section 39 of the Act related to it as well. The two proposals at issue were:

- the CAA's refusal to adopt the Competition Commission's recommendation to limit the amount of unpublished discounts and other unpublished marketing support that Manchester was able to treat as operating expenditure;
- the CAA's refusal to take the steps recommended by the Competition Commission to ensure the transparency and equality of treatment of Manchester's expenditures on selective support for particular users.

5.6 Liverpool noted that Manchester's Sales Development Fund ("SDF") had been limited in Q3 to £6 million per annum by the CAA acting on the recommendation of the then MMC. Manchester could have exceeded this level of expenditure but had chosen not to do so. For Q4, Manchester had proposed to nearly treble this amount to £16.2 million per annum (a figure above Liverpool's total turnover) but the Competition Commission had assumed a lower figure of £6 million for the purposes of recommending a price cap. Given a choice between competing with Manchester subject to a tight price cap or with Manchester subject to a loose price cap Liverpool's strong preference was for the former. Liverpool's counter proposal was that no SDF and related expenditure should be allowed for when calculating the price cap but, in compensation, a small adjustment should be made to produce a slightly looser overall cap.

5.7 Liverpool seriously questioned whether Manchester needed the SDF to develop domestic services at Manchester, given the number of existing services there compared to Liverpool. So far as charter services are concerned Manchester already enjoyed a 93.5% market share as against Liverpool's 6%. The success of Britannia's location of services at Liverpool might have been frustrated had Manchester been able to "target" that airline. The Government's policy of a complementary role for the two airports would also be undermined if Manchester could simply 'buy' low cost traffic.

### ***CAA assessment***

5.8 The following paragraphs consider responses to the CAA's proposals to make three specific adjustments to the operational projections adopted by the Competition Commission. These relate to the treatment of claims in respect of the second runway, retail income, and operating expenditure, and in particular expenditure on sales and marketing. Together with the CAA's view on the

appropriate cost of capital (see paragraphs 4.3 to 4.20 above) along with a modest headroom adjustment this led the CAA to propose a price cap of RPI-5% per annum rather than RPI-8.9% per annum as recommended by the Competition Commission.

### ***Treatment of Runway 2 (R2) claims***

- 5.9 In its recommendations the Competition Commission allowed £50 million for claims in respect of the construction of the second runway covering both claims from firms who built the runway and from local homeowners under the Land Compensation Act 1973. If the amount turned out to be greater than £50 million in Q4 the Competition Commission proposed that, with the certification of the CAA, this could be recovered from users in Q5 through an adjustment to the RAB resulting in an increase in the Q5 price cap. Manchester had forecast expenditure of £81.5 million towards these claims in Q4. In its proposal the CAA included the full amount forecast by Manchester Airport for these claims in Q4. The CAA saw no reason to reduce Manchester's forecasts despite their uncertainty, their impact on the price cap was relatively small and Manchester would have incentives to defend the claims which could benefit users in Q5.
- 5.10 Responding to the CAA's proposals British Airways argued that it was unreasonable for users to be expected to pay an additional 22% of the construction cost of Runway 2 over a year after the runway came into operation while they should only pay for land compensation claims as these were actually incurred by the airport. Similar arguments were made by IATA. The Charter Airline Group supported the allowance recommended by the Competition Commission. Manchester said that although the construction of the runway had been subject to contracts it could not avoid the claims that had been made or might be made in the future. The airport would however resist those claims rigorously. However, these represented a genuine cost of the R2 project and it was appropriate for allowance for them to be made in setting the price cap.
- 5.11 The CAA agrees with Manchester that the claims should be treated as part of the overall costs of building the second runway. It believes that the incentive properties of allowing for these claims in setting the price cap, with Manchester subsequently contesting them, is superior in terms of the CAA's objectives than a pass-through mechanism which some users seemed to be advocating. In any event the overall impact on the price cap is relatively small at this stage (0.4 percentage points per annum) since the expenditure is capitalised and it is only the return on capital that is included in the calculations and not the entirety of the claims.

### ***Projections of retail revenues***

- 5.12 The Competition Commission's modelling of its recommended price cap was based upon Manchester's retail revenue projections. These projections

incorporated the view that its performance in this area could improve considerably upon performance in the past. In particular, they reflected the conclusions of a consultant's report on retail performance that there was scope for considerable improvement in this area in terms of net profits.<sup>27</sup> The Competition Commission argued that adopting Manchester's projections of commercial revenues in the price cap modelling provided a solution to any market power that Manchester enjoys in relation to those activities since it would reduce Manchester's incentives to exploit its market power and ensure that excessive returns would benefit users through lower charges.

- 5.13 The CAA's price cap proposals were based on the maintenance of current profit levels for retail activities, i.e. zero growth of profits on a per passenger basis. This reflected the CAA's view that the increased incentives for Manchester from allowing it to retain the benefits of achieving ambitious projected improvements in its performance on retail revenues for the five year period would promote the efficient, economic and profitable use of the airport and further the reasonable interests of users over the longer term. The projections are ambitious given the scale of the projected improvement in comparison with Manchester's past performance and with BAA's projections for future retail income at the London airports. The CAA did not accept the Competition Commission's argument that its approach in a single till context would address concerns regarding any market power held by Manchester in commercial activities since the airport will still have the freedom and incentive to maximise its net revenue from commercial activities. While charges to airlines would be even lower under the Competition Commission's approach than under the CAA's proposed approach the CAA considered that these could be short term gains generated at the risk of longer term deterioration of airport services.
- 5.14 In responses users, and in particular British Airways, argued that the CAA should adopt all the commercial projections provided by Manchester to the Competition Commission and which were used in framing its price cap recommendations. British Airways did not agree with the proposition that the airport's efforts need to have been shown to be successful before being used in determining the price cap for future periods through the single till. It was not appropriate for the CAA to suggest that users should receive no share of the improvement in Manchester's commercial revenues. IATA did not believe that comparisons with BAA were necessarily relevant and Manchester enjoyed a similar monopoly on retail sites and activity as it did on aeronautical activities. The Charter Airline Group supported the reduction in airport charges through projected gains in retail revenue consistent with the 'single till' principle.
- 5.15 Manchester Airport explained that the forecasts of improvement in retail revenue used by the Competition Commission, taking account of the consultants' report,

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<sup>27</sup> Competition Commission, paragraphs 7.82-7.83 and 2.162

represented a high level view of what might be achievable. However a 'bottom up' analysis had suggested that a gap remained. The forecasts were also subject to considerable risk, in particular the impact of the enlargement of the European Union on duty free income, the airport's largest source of retail revenue. Potentially £10 million of income was at risk.

- 5.16 The CAA accepts that while the price cap continues to be set within a single till framework a view must be taken on the contribution from the performance on commercial activities in setting the cap. The CAA reaffirms the approach in its December document that, while noting the Competition Commission's recommendations, it is reasonable that projected profits on commercial activities for the purpose of setting the price cap for Q4 should be based on actual performance in Q3. It believes that to adopt the optimistic projections used by the Competition Commission, even if based on work by the airport's own consultants, would expose the airport to considerable risk of under-performance during Q4, increasing the risk of the need for an interim price cap review and possibly leading to lower investment and pressure on service quality at the airport. The CAA believes that the *ex ante* transfer of the totality of an airport's expected improvement in retail performance would have the undesirable effect of penalising full information disclosure by the regulated airports with a detrimental effect on the regulatory process. As is indicated above, any improvement on Manchester's current performance would normally be taken into account by the CAA as a new base for future price cap reviews. In this way appropriate benefits would be passed on to users in the form of lower airport charges in the future.
- 5.17 In deciding the level of the price cap the CAA has therefore allowed zero growth in real retail income growth per passenger during Q4, i.e. use Q3 retail earnings. This has the effect of reducing the value of X by about two percentage points in each year.

### ***Operating cost projections***

- 5.18 In its proposals the CAA generally adopted the operating cost projections used by the Competition Commission. These were the airport's own projections (other than in respect of staff costs where the Competition Commission assumed a lower real annual increase). It did so notwithstanding the implication that it would involve a full transfer to users of Manchester's projected operating cost efficiency gains. The one area where the CAA differed from the Competition Commission was in respect of proposed expenditure on sales and development where the CAA made full allowance for the airport's own projections rather than restrict the amount in the projections to £6 million per annum. Taking into account the fact that Manchester's traffic forecasts were based on the higher level of spending on marketing support the CAA concluded that it should not limit the amount of marketing support allowed for in the financial projections that underlie the setting of the price cap. It considered that there would need to be strong justification for further disallowance of operating costs recognising that



Manchester's business plan projections already included substantial efficiency improvements.

- 5.19 Users of Manchester generally endorsed the CAA's proposals in respect of operating cost projections and none made specific comments on the scale of Manchester's expenditure on sales and development. Manchester also made little comment on this. As noted above, Teesside and Liverpool Airports expressed concerns about both the scale of the fund and the lack of transparency. The question of transparency is addressed further in paragraphs 6.12 and 6.13 below.
- 5.20 So far as the size of the marketing support is concerned, and more specifically, the amount the CAA should allow for in setting the price cap, the CAA has indicated in paragraph 3.4 above its view that its section 39 objectives require it to have regard to the interests of users of other airports besides Manchester as well as to the efficient, economic and profitable operation of those other airports where they may be directly affected by the current and future likely behaviour of the price-regulated airport including the charges levied within the cap. The CAA has therefore considered carefully the points made by Teesside and Liverpool.
- 5.21 As a general proposition the CAA believes that where its statutory objectives can be best met through facilitating, or at least by not placing unreasonable regulatory barriers on, actual or potential competition between airports then this should be a factor that should be taken into consideration in fixing the price cap. Liverpool's (and Teesside's) main concern was with the scale of Manchester's marketing support and the effect this might have on competition between the two airports. The solution put forward by Liverpool was for the cap to be set at a tightly binding level which would itself serve to constrain the amount that Manchester would expend on marketing and route support. An alternative would be to allow no expenditure for the purposes of calculating the initial level of the cap but then set the cap at a slightly looser overall level in compensation. The second proposition is likely to have the same effect as the CAA proposal since the CAA only sets a price cap in any event. The CAA could set a very tightly binding cap, if it considered that this would be best calculated to meet its statutory objectives, but this would not, in itself, constrain Manchester in terms of its pricing and discounting policy. At any level of the price cap the airport would have an incentive to charge at levels where the (net present) value of additionally generated traffic was positive after allowing for all the sources of revenue generated by the additional traffic, for the effects on existing traffic and the incremental costs of that traffic. At the same time the CAA cannot accept the proposition that as a matter of regulatory policy it should make no allowance for Manchester's expenditure on sales and marketing, particularly given the evidence of the increasing competition that Manchester now faces. Such expenditure would seem to be a legitimate business cost and would be in the reasonable interests of users in aggregate.
- 5.22 The CAA recognises that the Competition Commission's use of Manchester's Q3 expenditure of about £6 million per annum on sales development as a limit for

Q4 was a judgement reflecting the Competition Commission's views that no airline should be required to subsidise another, but that there were offsetting benefits to airlines that do not receive discounts from the creation of new routes and the effects of higher commercial revenues on airport charges in the long term. The CAA understands both of these views but its judgement is that the economic case for sales development expenditure at airports with spare capacity (such as Manchester with its second runway) is considerable until any gap between the incremental costs of new traffic and the incremental revenues from to users is eliminated. Whatever level of sales development expenditure is included in the calculation of the price cap Manchester will have the incentive to attract new traffic where the incremental revenues exceed the incremental costs and will bear the risks of such expenditure. While there are concerns about the consequences for competition that arise from greater airport pricing flexibility the CAA does not consider that the price cap would be the right instrument to use to handle concerns about potential anti-competitive pricing. It believes that section 41 of the Act and the Competition Act 1998 would be more effective and appropriate.

- 5.23 Given the foregoing, the CAA can see no convincing case for a reduction in the relevant expenditure and has decided to accept Manchester's forecasts of expenditure on sales and marketing when setting the price cap. The effect of this adjustment to the projections adopted by the Competition Commission is to raise the price cap by the equivalent of one percentage point of X in each year.

### ***Profiling over ten years***

- 5.24 The CAA's approach of profiling charges over ten years has the effect of deferring revenue with a present value of £33 million (in 2000/1 prices) from Q4 to Q5. The CAA considers that profiling over ten years is more consistent with the approach adopted in the BAA London airports review in respect of Heathrow and Stansted and avoids possible adverse effects from the major changes to the price cap path which is projected to occur if the cap was set to allow Manchester to earn its cost of capital in each five year period. Applying a five year approach to the CAA's assumptions would have implied a price formula of RPI-2.9% per annum for Q4 followed by RPI-12.1% per annum for Q5. The CAA's approach to profiling results in a more stable path of price adjustment. It is likely to be more robust in regulatory terms which will assist both users and the airport to plan for the future.

### ***Other relevant factors***

- 5.25 Paragraphs 5.9 to 5.24 above discuss the direct factors that would of themselves result in a price cap higher than that recommended by the Competition Commission. There are two indirect factors that reinforce this position. These relate to the impact on service quality and reliance on interim reviews of the price cap.



TABLE 6.12 Overtime

	1997/98	1998/99	1999/00	2000/01	2001/02
<i>(a) All staff</i>					
Number of staff (FTE)	1,686	1,673	1,781	1,803	1,733
Average basic weekly hours	37.5	37.3	37.5	37.8	37.9
Average overtime hours per week	1.0	1.7	1.0	1.0	0.4
Average overtime pay per week (£)	9.09	19.17	14.08	13.67	4.94
<i>(b) Security staff</i>					
Number of staff (FTE)	635	633	704	682	696
Average basic weekly hours	37.9	38.0	38.0	38.0	38.0
Average overtime hours per week	1.3	2.8	1.6	1.6	0.3
Average overtime pay per week (£)	11.60	37.92	20.84	22.55	3.67

Source: Manchester.

6.31. These figures are well below the national average. The *New Earnings Survey* (NES) showed that employees who worked overtime did so for an average of 9.2 hours (manuals), 5.9 hours (non-manuals), and 8.1 hours (all). In the whole economy, average overtime hours were 4.6 for manual workers, 1.1 for non-manuals and 2.6 for all male adult workers.

### Absence

6.32. Manchester told us that absence featured in budgets, was monitored on a monthly basis and that reductions were targeted. There had, for example, been a target to reduce absence levels in security from 6 to 4 per cent over the previous three years.

6.33. Manchester provided us with data showing absence rates over the past five years. An analysis of this is in Tables 6 and 7 of Appendix 6.2. These show that absence varies significantly between different business areas. However, the overall absence rate of 5.9 per cent in 2001/02 equated to 13.6 days per employee. This compares to an average of 3.1 per cent or 7.1 working days per employee for industry as a whole reported in the CBI survey for 2001.<sup>1</sup> Manchester said that these figures were misleading, as it had a higher proportion of manual workers than the CBI 'all employment' figures. It said that its absence was only marginally higher than the 'all airport' figure of 12.1 days.

6.34. Manchester's sick pay arrangements vary according to an employee's length of service. The current policy pays allowances ranging from four weeks' full pay and four weeks' half pay for employees with more than six months' service, but less than one year's service, to 26 weeks' full pay and 26 weeks' half pay for those with more than six years' service. The new terms and conditions introduced for security staff included revised arrangements for sick pay.

6.35. Table 8 in Appendix 6.2 shows that the total cost of absence to Manchester could be as much as £2.7 million (excluding RHS). If absence were reduced to the median level for industry as a whole in 2000, there would have been a saving of £1.3 million. This figure excludes on-costs such as sick pay, replacement labour, overtime, employer's National Insurance contributions, pension contributions, reduced performance and administration, which would double the cost. As noted in paragraph 6.33, Manchester argued that these figures were misleading. We noted that absence data for March 2002 shows that absence levels among security staff and fire service staff had increased to 14 per cent and 10 per cent respectively. These equate to 32.2 days and 23 days lost respectively per employee per year.

### Labour turnover

6.36. Manchester told us that, with the exception of the redundancy programme in 2001/02, staff turnover remains relatively low at around 3 per cent. This compares with an average of 16.5 per cent in

<sup>1</sup>Counting the costs 2002 absence and labour turnover survey, CBI.



## 16 Appendix 2: Average level of employee absence, by industry<sup>i</sup>

	Number of respondents	Average working time lost per year (%)		Average days lost per employee per year	
		5% trimmed mean	Mean	5% trimmed mean	Mean
<b>Manufacturing and production</b>					
Agriculture and forestry	0	/	/	/	/
Chemicals, oils and pharmaceuticals	4	4.8	5.1	10.9	11.6
Construction	8	1.5	1.4	3.3	3.3
Electricity, gas and water	1	n/a*	1.3	n/a*	3.0
Engineering, electronics and metals	18	2.1	2.1	4.8	4.9
Food, drink and tobacco	11	2.4	2.5	5.6	5.7
General manufacturing	3	n/a*	2.5	n/a*	5.8
Mining and quarrying	0	/	/	/	/
Paper and printing	3	n/a*	2.7	n/a*	6.2
Textiles	5	2.8	2.9	6.4	6.7
Other manufacturing/production	27	3.2	3.7	7.3	8.5
<b>Private sector services</b>					
Professional services (accountancy, advertising, consultancy)	46	1.8	1.9	4.1	4.2
Finance, insurance and real estate	25	1.8	2.1	4	4.8
Hotels, catering and leisure	9	2.2	2.3	5	5.1
IT services	22	1.4	1.6	3.3	3.7
Communications	0	/	/	/	/
Media (broadcasting and publishing, etc)	3	n/a*	2.2	n/a*	4.9
Retail and wholesale	21	2.5	2.8	5.7	6.3
Transport, distribution and storage	10	3.2	3.5	7.3	8.0
Call centres	3	n/a*	3.0	n/a*	6.9
Other private services	43	2.0	2.0	4.5	4.6
<b>Public services</b>					
Education	20	2.6	2.6	5.8	5.9
Central government	12	3.1	3.1	7.1	7.2
Local government	36	4.2	4.3	9.6	9.8
Health	27	4.2	4.3	9.7	9.8
Other public services	14	3.3	3.4	7.5	7.7
<b>Non-profits</b>					
Housing associations	12	3.7	3.7	8.4	8.4
Charity services	38	2.1	2.2	4.9	5.0
Care services	12	4.1	4.1	9.4	9.4
Other voluntary	11	2.4	2.4	5.6	5.6

<sup>i</sup> Differences should be treated with caution because of the small number of respondents in each industry

\* It is not meaningful to calculate the 5% trimmed mean with a low number of respondents





# APPENDIX E

## Appendix A - Asset Care (CSF)

CIP Number	Project Title	Steer			CAR Draft Allowance	Reconciliation	Comments
		CIP Cost €m	Steer Cost €m	Contingency €m			
CIP.20.01.001	Southern Runway (10R/28L) Delethalisation Programme	€2.2	€2.2	€544,490	€2.2	F	We cannot comment beyond the findings of the Steer report and assume that any information provided regarding the scope area has been validated. We would note that the area does not appear unreasonable. From the information provided in the CIP it is felt that both the area estimate and unit cost/m <sup>2</sup> for the works is significantly over estimated. Allowance should be made for a reduced scope (see further details in the Report before inclusion within the StageGate
CIP.20.01.002	Apron Rehabilitation Programme	€37.0	€30.8	€5,341,863	€30.8	S	From the information provided in the CIP it is felt that the proposed scope area of 37,000m <sup>2</sup> appears reasonable based on high level analysis suggesting it is only works within the middle third of the taxiways. However, we see no reason for the cost to be based on full reconstruction of the taxiways when it is unlikely that this is required in all but localised areas. For further details refer to the Report. Scope should be reduced
CIP.20.01.003	Airfield Taxiway Rehabilitation Programme	€19.0	€17.4	€3,016,214	€17.4	S	The approach of using a full reconstruction cost for the estimate is considered completely unnecessary even at an early scoping stage especially as condition surveys have been carried out. Include within flexible programme to ensure that unnecessary expenditure is not undertaken.
CIP.20.01.004	Apron Road Rehabilitation Programme	€4.6	€3.9	€673,770	€3.9	F	Further use of full pavement reconstruction cost across the full scope area is again unnecessary. Scope should be reduced.
CIP.20.01.006	Airfield Southern Perimeter Road Upgrade Programme	€4.6	€4.0	€972,985	€4.0	F	It is recommended that these works are carried out on Runway 10/28 only at this time.
CIP.20.01.008	Runway Approach Lighting Mast Improvement Programme	€11.1	€11.1	€2,515,283	€11.1	D	Once the northern runway is live 16/34 will only be used for a small number of landings. We believe a major expenditure on this runway should be delayed until after that time. Scope can be reduced.
CIP.20.01.009	Aerodrome Ground Lighting (AGL) Improvement Programme	€4.7	€4.7	€1,153,787	€4.7	D	We believe the majority of the scope is valid but would question the need to replace the light fittings associated with Runway 16/34 in conjunction with comments made above on CIP.20.01.008. Scope can be reduced.
CIP.20.01.010	Airfield Lighting Control & Management System Improvement Programme	€4.9	€4.9	€1,199,754	€4.9	D	In light of the proposed expansion of the taxiway network and the completion of the Northern Runway, we acknowledge that a new, expanded and more intelligent control system is required to ensure efficient and safe traffic management.
CIP.20.01.012	AGL Substation T Development Programme	€3.7	€3.7	€496,997	€3.7	D	Accepted that a new larger sub-station would be required to cater for additional circuits associated with the Northern Runway and other new AGL. Scale and cost appear broadly sensible.
CIP.20.01.015	High Mast Lighting Improvement	€0.7	€0.7	€67,483	€0.7	F	We accept the need to upgrade for sustainability and associated EASA licensing reasons.
CIP.20.01.016	Airfield Maintenance Base Improvement Programme	€4.5	€4.4	€1,129,877	€4.4	F	In principle, we understand the requirement for expanded facilities to cater for growth associated with the north runway and general traffic growth. Insufficient information is provided on the actual scope of the works. We would question why there would be any expenditure on maintenance of the south apron buildings when most of them are marked for demolition to make way for Pier 5, the new PBZ and expanded apron. Scope should be reduced. Include within flexible programme to ensure that unnecessary expenditure is not undertaken.
CIP.20.01.018	Campus Buildings Critical Maintenance	€1.5	€1.5	€47,250	€1.5	F	The cost seems disproportionately expensive for the scope of the project. See the main Report. Scope and cost should be reduced.
CIP.20.01.020	Terminal 1 Façade, Roof & Spirals	€25.8	€25.2	€5,683,879	€25.2	S	We accept that the issues described within the CIP need to be addressed but would question why the drainage system was not upgraded with each extension to the terminal roof footprint. This suggests that past investment has been inefficient.
CIP.20.01.022	Terminal 1 Storm Water Drainage System	€1.1	€1.1	€251,971	€1.1	F	We understand the principle of these maintenance works but would voice the comments of the Steer report in relation to lack of detail in the CIP which makes meaningful assessment not possible.
CIP.20.01.023	Piers & Terminals Critical Maintenance	€1.9	€1.7	€224,595	€1.7	F	

Based on the information provided in the CIP the treatment of these issues within the next 2 years appears sensible in order to preserve the integrity of the passenger link. However, given the high cost of the structure in the first instance, which was constructed despite being opposed by users, the failure and short asset life is a real example of inefficient capital investment by Dublin Airport, for which users have already paid. Consideration should be given to reducing the additional amount allowed into the RAB to reflect past inefficiency.									
CIP.20.01.024	Skybridge Rehabilitation	€1.2	€1.2	€271,964	€1.2	D	From the information provided, it is not possible to tell whether there is an element of double counting of works to the roads with the CIP.20.03.006 Terminal 1 Kerbs.		
CIP.20.01.034	Campus Roads Critical Maintenance	€6.8	€6.2	€1,523,352	€6.2	F	We accept the requirement for the scope of this project as a necessary maintenance cycle.		
CIP.20.01.039	Airport Roads Critical Maintenance	€5.1	€4.9	€1,105,006	€4.9	D	We accept the requirement for the scope of this project as a necessary maintenance cycle.		
CIP.20.01.046	Staff Car Parks Critical Maintenance	€1.7	€1.6	€352,732	€1.0	F	We accept the requirement for the scope of this project as a necessary maintenance cycle.		
CIP.20.01.049	Public Carpark Critical Maintenance	€2.4	€2.3	€405,482	€2.3	F	We accept the need to replace this life expired facility.		
CIP.20.01.056	Campus Facilities & Landside Snow Base Upgrade	€2.9	€2.8	€639,928	€2.8	F	Further information is required to confirm why the 2 fire tenders that have not lived out their expected asset life are being replaced.		
CIP.20.01.065	Airport Heavy Fleet & Equipment Replacement	€11.0	€11.0	€0	€11.0	F	We accept the requirement for this project in line with a normal rolling fleet replacement programme.		
CIP.20.01.069	Airport Light Vehicle Fleet Replacements and Augmentation	€2.4	€2.4	€0	€2.4	F	There is only limited information on which to comment. In principle, we accept that this project will benefit passengers but the allowance should be limited until such time as the requirement and scope for commercial revenue generation is confirmed through the		
CIP.20.01.071	Electric Charger Network Facilities	€1.6	€1.6	€406,588	€1.6	S	We accept this project will bring efficiency savings which will ultimately benefit the		
CIP.20.01.074	Advance Visual Docking Guidance System (5G, Pier 1 & Pier 2)	€5.3	€5.4	€1,227,125	€5.4	D	We accept this project is required to add needed resilience to critical airfield systems.		
CIP.20.01.087	AGL Fibre Optic Communication Network Improvement Programme	€2.0	€2.0	€350,160	€2.0	D	We question the value of LVP lighting when there are soon to be 2 parallel taxiways which could be used to manage traffic in the very few instances of LVPs annually. This project should be referred to the StageGate process.		
CIP.20.01.099	RWY 16/34 Lighting for Low Visibility Procedures (LVP)	€5.5	€5.5	€714,572	€5.5	S	This project is considered essential in line with compliance requirements as the airfield is developed along with the new Northern Runway.		
CIP.20.07.013	Airfield Redesignation	€1.5	€1.5	€228,825	€1.5	F	We accept this project is in line with growth of traffic which will drive the requirement for improved efficiency on the airfield.		
CIP.20.07.032	Unit Load Device (ULD) Storage	€5.0	€5.1	€931,084	€5.0	S			
<b>TOTAL</b>		<b>€181.7</b>	<b>€170.8</b>	<b>€31,477,016</b>	<b>€170.1</b>				

**Appendix B - Asset Care Mechanical & Electrical (M&E)**

CIP Number	Project Title	Steer			CAR Draft Allowance	Reconciliation	Comments
		CIP Cost €m	Steer Cost €m	Contingency €m			
CIP.20.02.001	Medium Voltage (MV) Electrical Network	€6.3	€6.3	€1,422,934	€6.3	D	
CIP.20.02.002	Second Medium Voltage (MV) Connection Point	€1.0	€1.0	€0	-	-	
CIP.20.02.004	Passenger Boarding Bridges (Maintenance & P3 Enhancement) & Fixed Electrical Ground Power	€18.1	€17.2	€3,658,619	€17.2	D	
CIP.20.02.005	Lift Upgrade Programme - Terminal and Multi Storey	€6.2	€6.2	€950,856	€6.2	F	
CIP.20.02.006	Airport Water & Foul Sewer Upgrade	€5.0	€4.9	€935,283	€4.9	F	
CIP.20.02.007	Life Safety Systems (LSS) Upgrade Programme Terminal and MSCP Buildings	€10.1	€10.1	€2,151,953	€10.1	D	
CIP.20.02.008	Terminal Buildings HVAC Upgrade	€17.8	€17.8	€3,412,539	€17.8	D	
CIP.20.02.009	Campus Buildings: Mechanical, Electrical & LSS Upgrade	€9.5	€9.4	€1,639,416	€9.4	F	
CIP.20.02.010	Pier 3 Life Extension Works - Mech, Elec and Foul Drainage	€14.0	€14.0	€2,695,212	€14.0	D	
CIP.20.02.013	Small Energy Projects	€4.8	€5.4	€597,205	€5.4	F	
CIP.20.07.030	Large Energy Project - Photovoltaic Farm	€10.0	€8.5	€768,625	€8.5	D	
<b>TOTAL</b>		<b>€102.8</b>	<b>€100.8</b>	<b>€18,232,642</b>	<b>€99.8</b>		

We are unable to provide technical commentary on this group of projects. We do however reject the requirement for the average contingencies to be as much as 18% and recommend they are lowered. A more detailed commentary on this subject is provided in the main report. In overall terms, the scope of the programme and allowed cost can be reduced to reflect uncertainty as to scope and actual requirements.

Appendix C - Capacity		CIP Cost		Steer		CAR Draft Reconciliation		Comments	
CIP Number	Project Title	Terminal 1	Terminal 2	Airfield	Steer Cost €m	Contingency €m	Allowance		
CIP.20.03.004	Gate Post9 Expansion (West Lands)			€9.0	€8.5	€1,917,955	€8.5	F	Ryanair do not support this project on the basis that is believed passenger facilities to the west are not required within this quinquennium driving the need for a 'super-gate'. Would agree that this is prudent in relation to ASIAD safeguarding leading ultimately to improved public safety. It is worth noting however that this will set apart T1 from T2 which has the same issue of passenger set down directly outside the terminal. Terminal 2 has the added issue of the T1 access road passing directly under the terminal where it is believed a back of house mezzanine floor spans the road. Given the high cost of T2 and users concerns this project is supported by Ryanair who believe this project will make necessary improvements to the check-in area.
CIP.20.03.006	Terminal 1 Kerbs	€13.6			€13.6	€3,357,894	€13.6	S	We recommend that the scale of this project is reviewed in light of the fact Helios modelling appears to show redesign relative to throughput.
CIP.20.03.011A	Terminal 1 Check-in	€30.2			€25.7	€6,348,665	€25.7	S	It would appear that this project may be a Commercial scheme and, in any event, would not appear to be efficient investment in terms of the retail offer given the costs and revenues cited. To the extent that reconfiguration is required, this should be absorbed into the scope of the T1 Security project
CIP.20.03.012	Terminal 1 Central Search - Relocation to Mezz Level	€42.6			€28.8	€7,264,548	€28.8	S	Based on the Helios analysis, it would appear that this project may have been overscoped, justifying the project's inclusion in the StageGate process
CIP.20.03.013	Terminal 1 Departure Lounge (IDL) Reorientation and Rehabilitation	€42.4			€28.3	€7,001,725	€28.3	Omit	This project is supported by Ryanair who believe this project will help alleviate congestion in the baggage reclaim hall.
CIP.20.03.015	Terminal 1 Baggage Reclaim Upgrade & Alterations	€22.2			€19.0	€4,693,662	€19.0	S	We acknowledge that this project is required to facilitate the operation of Module 1 as part of the North Apron development which is supported by Ryanair.
CIP.20.03.016	Terminal 1 - Rapid Exit Arrivals	€2.2			€1.9	€475,634	€1.9	F	Based on the Helios analysis, it would appear that this project may have been overscoped. We believe either the scope should be reduced now or the project included within the StageGate process.
CIP.20.03.017	Terminal 1 Shuttle, bus lounges and injection points	€2.8			€1.9	€463,286	€1.9	F	Based on the Helios analysis, it would appear that this project may have been overscoped. We believe either the scope should be reduced now or the project included within the StageGate process.
CIP.20.03.018	Terminal 1 Immigration Hall	€1.5			€1.8	€443,138	€1.8	S	Based on the Helios analysis, it would appear that this project may have been overscoped. We believe either the scope should be reduced now or the project included within the StageGate process.
CIP.20.03.020	Terminal 2 Check-in Area Optimisation		€14.8		€13.2	€3,229,031	€13.2	S	The Helios analysis suggests this project is needed to overcome the queuing in peak times observed at 40mppa and we therefore accept it is necessary.
CIP.20.03.021	Terminal 2 Central Search Area Expansion		€5.6		€4.7	€1,160,999	€4.7	S	The requirement for this facility has not been demonstrated so further analysis is required as part of the StageGate process.
CIP.20.03.028	Terminal 2 Early bag store and transfer lines		€27.9		€27.9	€6,310,224	€27.9	S	We acknowledge that this goes hand in hand with delivering increased contact gate service as part of the wider South Apron development
CIP.20.03.029	New Pier 5 (T2 and CBP Enabled)		€323.6		€289.0	€65,732,566	€289.0	S	Analysis would suggest that this is required to cope with increased transatlantic operations. However, the scope of works will need to be confirmed through the StageGate process.
CIP.20.03.030	Expansion of US Pre-Clearance Facilities		€50.3		€54.5	€12,354,116	€54.5	S	Ryanair supports this project for the same reason they support the equivalent expansion of the North Apron
CIP.20.03.031	South Apron Expansion (Remote Stands, Taxiway and Apron)		€89.8		€70.5	€14,390,498	€70.5	S	Analysis would suggest that this is required to cope with increased transatlantic operations. However, the scope of works will need to be confirmed through the StageGate process.
CIP.20.03.033A	Enablement of Pier 3 for Pre-Cleared US bound passengers		€8.5		€7.3	€1,800,462	€7.3	S	Based on the Helios analysis, it would appear that this project may have been overscoped. We believe either the scope should be reduced now or the project included within the StageGate process.
CIP.20.03.034	Pier 3 Immigration (Upgrade & Expansion)	€1.4			€4.7	€1,149,796	€4.7	F	Ryanair support this project but would also like to see the Module 2 project included into the CIP to ensure an acceptable level of contact service is provided in Terminal 1.
CIP.20.03.036	North Apron Development - Pier 1 Extension (Module 1) & Apron 5H PBZ	€175.3			€158.6	€39,204,005	€158.6	S	Relates to Pier 2 and widebody growth. Scope of requirement needs to be confirmed.
CIP.20.03.043A	Terminal 1 Piers - New Airbridges (GNBE / 3WB)	€33.9			€23.3	€5,761,698	€23.3	S	Ryanair support this project on the basis it will bring necessary improvement to airfield efficiency in snow and ice conditions.
CIP.20.03.049	De-icing pad at Runway 10R			€5.0	€5.0	€1,236,466	€5.0	F	Ryanair does not support this project. We think it is premature to construct the underpass until there is demonstrable evidence that there is substantial use of apron areas in the West for handling of 'live' passenger carrying aircraft
CIP.20.03.051B	West Apron Vehicle Underpass - Pier 3 Option			€171.0	€169.0	€46,588,724	€169.0	S	It is unclear why this should be a capacity project and its inclusion would need to be justified through the StageGate Process.
CIP.20.03.052	Surface Water Environmental Compliance	€25.5			€51.6	€11,539,740	€51.6	S	No justification is provided within the CIP for the timing when these stands would be required. We consider this to be a premature provision of additional capacity and recommend the capex is not allowed until the need is proven.
CIP.20.03.054	New Remote Apron 5M - 17 NBES	€54.1	€18.0		€71.0	€17,535,125	€71.0	S	Ryanair support this project on the basis that it will bring efficiency benefits to their ground handlers and improve the overall airfield efficiency.
CIP.20.03.057	Airside GSE Charging Facilities (Ground Handlers)			€5.0	€4.9	€1,211,331	€4.9	D	

We acknowledge that this project will bring safety and airfield efficiency benefits and as such accept its inclusion in the CIP.

CIP.20.03.071	Hydrant Enablement - Pier 2 & 3	€23.7	€23.7	€5,852,193	€23.7	S
<b>TOTAL</b>		<b>€447.7</b>	<b>€213.7</b>	<b>€267,023,481</b>	<b>€1,108.4</b>	
CIP.20.03.072	Transfer Immigration Booths - Pier 4 and T2	€568.3	€1,108.4	€0.8	€0.8	Omit
					<u>€1,109.2</u>	

## Appendix D - Commercial

CIP Number	Project Title	Steer		CAR Draft Allowance	Reconciliation	Comments
		CIP Cost €m	Steer Cost €m			
CIP-20.04.001	Car Parking Management System (Maintenance & upgrade)	€3.1	€3.4	€3.4	F	The cost of this project requires further justification in terms of revenue generation
CIP-20.04.002	Car Hire Consolidation Centre	€14.0	€13.6	€13.6	S	This project requires further justification as to scope and cost.
CIP-20.04.003	New Food & Beverage Fit out (T1X)	€2.1	€0.9	€0.9	F	
CIP-20.04.004	Digital Advertising Infrastructure	€2.2	€291,160	€2.2	F	
CIP-20.04.005	Long Term Car Parking - Eastland's (2000 spaces)	€5.9	€1,263,638	€9.4	F	Further justification is required regarding the scope of these projects and the revenue generation potential
CIP-20.04.006	Terminal 1 Multi - Storey Car Park Block B (480 spaces)	€18.8	€2,337,176	€17.4	S	
CIP-20.04.007	Terminal 2 Multi - Storey Car Park (680 spaces)	€15.1	€2,004,411	€14.9	S	
CIP-20.04.009	Staff Car Park	€6.0	€774,225	€5.8	D	Ryanair support this project as additional staff car parking is required to ensure that delays do not arise from lack of space.
CIP-20.04.016	Platinum Services Upgrade Works	€2.1	€0	€2.1	F	
CIP-20.04.017	Airline Lounges - Expansion, Upgrade & New	€11.4	€2,567,445	€11.4	S	
CIP-20.04.018	Fast Track Improvements	€1.7	€185,400	€1.7	F	
CIP-20.04.021	West Apron - Accommodation & Welfare Facilities	€4.5	€416,983	€3.8	F	
CIP-20.04.023	Food & Beverage Provision & Fit Out - Post CBP	€3.2	€234,216	€1.4	F	Further justification is required regarding the scope of these projects and the revenue generation potential
CIP-20.04.025	Commercial Property Refurbishment	€8.0	€1,141,457	€6.0	F	
CIP-20.04.030	New Kitchen in Terminal 2	€3.0	€514,402	€2.3	F	
CIP-20.07.010	Office Consolidation & Refurbishment (primarily Level 4 & 5, Terminal 1)	€15.0	€2,037,570	€11.9	S	
CIP-20.08.001	Retail Refurbishments, Upgrades and New Developments	€8.0	€0	€8.0	F	
CIP-20.08.002	Retail Marketing & Media Installation	€1.5	€0	€1.5	F	
<b>TOTAL</b>		<b>€125.6</b>	<b>€117.7</b>	<b>€15,047,346</b>		<b>€117.7</b>

## Appendix E - Information Technology

CIP Number	Project Title	CIP Cost €m	Steer Cost €m	CAR Draft Allowance	Reconciliation	Comments
CIP.20.05.001	Airfield Optimization	€5.9	€5.6	€5.6	F	
CIP.20.05.002	Digital Passenger Experience	€1.8	€1.8	€1.8	F	
CIP.20.05.003	Integrations and Data	€5.1	€5.1	€5.1	F	
CIP.20.05.004	Baggage Systems	€1.3	€1.3	€1.3	F	
CIP.20.05.005	Business Efficiency	€6.2	€6.2	€6.2	F	
CIP.20.05.006	Commercial Systems	€2.3	€2.3	€2.3	F	
CIP.20.05.007	Reliability, Safety, Security & Compliance	€8.2	€8.2	€8.2	F	
CIP.20.05.008	Operational Devices (Support & Maintenance)	€1.8	€1.8	€1.8	F	
CIP.20.05.009	Network Components - Lifecycle & Growth	€6.9	€6.8	€6.8	F	
CIP.20.05.010	Passenger Processing (excl. Security Screening)	€11.0	€11.0	€11.0	S	
CIP.20.05.011	Security Technology Innovation (Biometrics & FOD Detection)	€5.0	€5.0	€5.0	F	
CIP.20.05.012	Servers and Storage - Lifecycle & Growth	€5.6	€5.6	€5.6	F	
CIP.20.05.014	User Devices (Desktops, Mobile, Telephone, Radio)	€3.7	€3.7	€3.7	F	
CIP.20.05.015	New Data Centre Hosting Location	€4.0	€4.0	€4.0	F	
CIP.20.05.016	Microsoft Enterprise	€6.0	€6.0	€6.0	F	
CIP.20.05.020	Innovation Fund	€4.0	€4.0	€4.0	F	
<b>TOTAL</b>		<b>€78.8</b>	<b>€78.4</b>	<b>€78.4</b>		

We are unable to provide technical commentary on this group of projects. The overall scope of the programme should be reduced to reflect uncertainty as to whether the full list of projects will need to be delivered to the full scope costed.

Appendix F - Security

CIP Number	Project Title	Steer			CAR Draft Allowance	Reconciliation	Comments
		CIP Cost €m	Steer Cost €m	Contingency €m			
CIP.20.06.001	Cabin Baggage X-Ray Replacement & EDS Upgrade	€14.6	€16.8	€3,526,395	€16.8	F	
CIP.20.06.007	Full Body Scanners	€1.9	€1.8	€159,552	€1.8	F	
CIP.20.06.009	ATRS - Additional Lane in Terminal 1	€0.6	€0.5	€98,405	€0.5	D	
CIP.20.06.014	Screening and Logistics Centre	€13.4	€13.3	€2,736,723	€13.3	S	
CIP.20.06.015	Intrusion Detection Systems for Dublin Airport Boundaries	€4.0	€4.0	€988,889	€4.0	F	
CIP.20.06.016	Surface Road Blockers & Temporary Mobile Barriers	€1.0	€1.0	€127,785	€1.0	F	
CIP.20.06.022	Redevelopment of Training Facility (ASTO)	€1.2	€1.2	€157,013	€1.2	F	
CIP.20.06.025	Detection: Explosive Detection Dogs (EDD) and Mobile X Ray Unit	€0.2	€0.2	€23,470	€0.2	F	
CIP.20.06.030	VCP Automation to Enable Remote Screening	€0.7	€0.7	€92,241	€0.7	F	
CIP.20.06.031	Autopass - T1 Replacement & T2 Install	€1.8	€1.8	€340,253	€1.8	F	
CIP.20.06.036	TSA X Ray & FBSS Replacement	€0.4	€0.4	€74,860	€0.4	F	
CIP.20.06.041	Security Screening Equipment - End of Life	€4.5	€4.5	€406,075	€4.5	F	
CIP.20.06.042	ATRS - Central Search Areas (T1 and T2)	€11.7	€11.0	€1,907,298	€11.0	F	
CIP.20.06.044	Replacement of T1 Controllers for Access Control System	€0.5	€0.5	€102,057	€0.5	F	
<b>TOTAL</b>		<b>€56.5</b>	<b>€57.7</b>	<b>€10,741,016</b>	<b>€57.7</b>		
CIP.20.07.031/033 HBS3- T1 and T2					€181.9	S	
					<b>€239.6</b>		

We are unable to provide technical commentary on this group of projects, and recommend they are lowered. A more detailed commentary on this subject is provided in the main Report. The overall amount allowed should be reduced to reflect uncertainty across the whole programme.



**Appendix G - Others**

CIP Number	Project Title	CIP Cost €m	Steer Cost €m	Contingency €m	CAR Draft Allowance	Reconciliation	Comments
CIP.20.07.001	Programme Management	€4.0	€4.9	€360,800	€4.9	F	
CIP.20.07.002	Minor Projects (projects generally under €100k, water pump replacements, gate area repairs etc.)	€12.5	€12.5	€0	€12.5	F	
CIP.20.07.004	Metro Coordination	€0.5	€0.8	€46,370	-	-	We are unable to provide technical commentary on this group of projects. The allowance should be reduced within a flexible programme for delivery.
CIP.20.07.014	Terminal Operations Improvement Projects	€4.9	€4.5	€779,364	€4.5	F	
<b>TOTAL</b>		<b>€21.9</b>	<b>€22.7</b>	<b>€1,186,534</b>	<b>€21.9</b>		

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