



Maximum Level of Airport Charges at Dublin Airport 2014 Determination

Commission Paper 2/2014

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Commission for Aviation Regulation

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Foreword

1. This is the fourth Determination on the maximum level of airport charges made by the Commission for Aviation regulation and the third made since the enactment of the State Airports Act, 2004. This Determination applies to airport charges for the years 2015 to 2019 inclusive.
2. As during previous determinations, there has been a significant level of information exchange between the Commission, DAA and various interested parties in making this Determination. In addition, the Commission again retained a number of consultants and also consulted with users on a number of critical issues. I would like to thank all parties who made representations. The views received significantly assisted the Commission in discharging its statutory functions.

John Spicer
Acting Commissioner

7 October 2014

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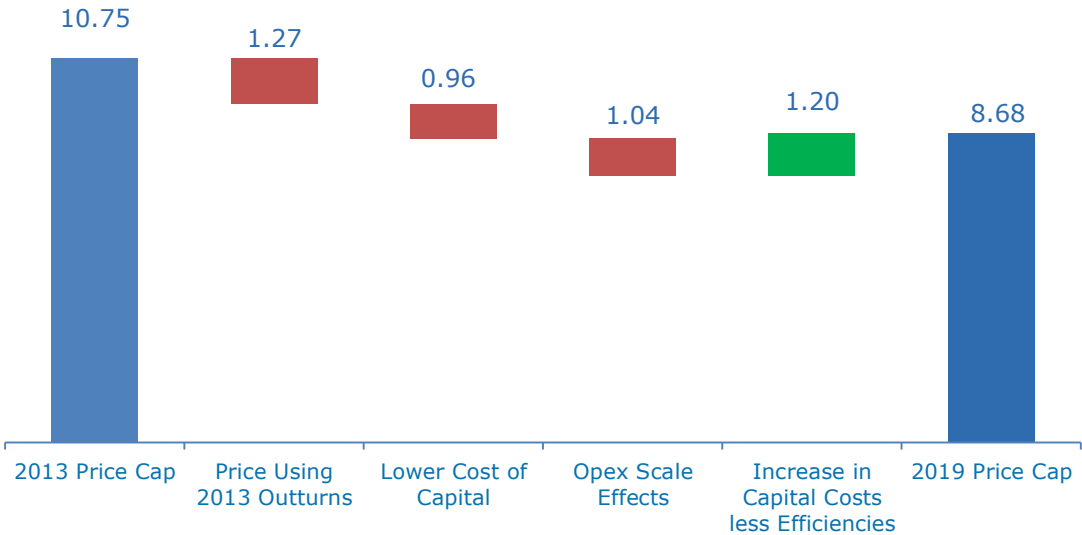
Executive Summary

Table 1: Price Cap 2015-2019

	2015	2016	2017	2018	2019
Price Cap (€)	10.30	9.87	9.45	9.06	8.68
Annual change (%)		-4.2	-4.2	-4.2	-4.2

1. This is the fourth Determination governing the maximum level of airport charges that we have made. The Determination will apply to airport charges that Dublin Airport Authority (DAA) may levy at Dublin Airport. It will come into effect on 1 January 2015 and last for five years. As in past determinations, the maximum level of airport charges is expressed as an annual per passenger price cap.
2. In 2015 the price cap will be €10.30, and thereafter it will fall by 4.2% per annum in real terms.¹ The cap will be adjusted upwards to fund certain capital investments that might be necessary to meet safety requirements or increase runway capacity. A downward adjustment would arise if DAA fails to provide an adequate quality of service.
3. This decision is the culmination of a lengthy consultation process, with parties having an opportunity to make comments following publication of an Issues Paper in July 2013 and a Draft Determination in May 2015. Thirty-three parties responded to the Draft, more than ever before. We have considered carefully all of their representations in finalising our Determination.

Chart 1: Getting to the 2019 Price Cap (€)



4. In the Draft Determination we identified two important factors that suggested the price cap should fall. First, since the time of the last Determination, made in 2009, the evidence on DAA’s costs suggested that

¹ Unless otherwise stated, all costs and prices are reported in July 2014 prices using the Central Statistics Office’s consumer price index (CPI) to convert nominal values into real values.

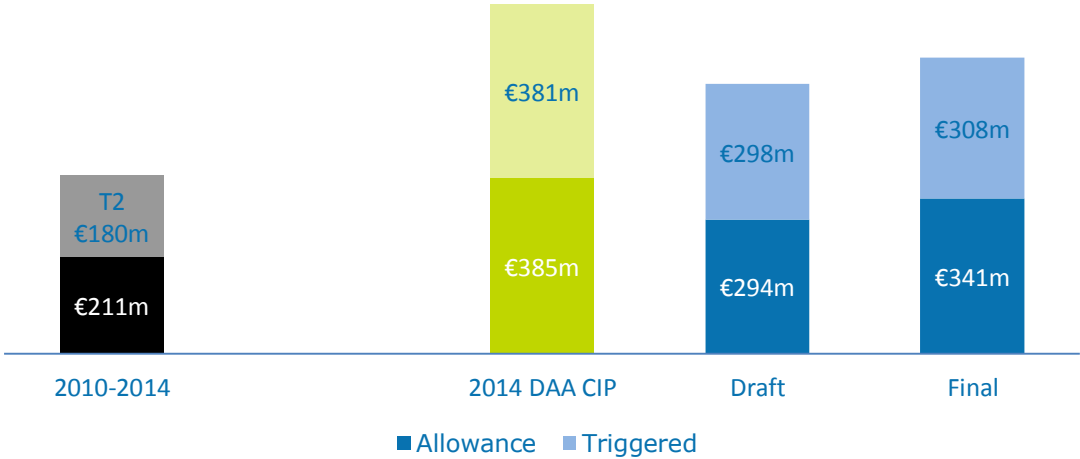
we should adopt lower assumptions than we had used then. Second, there was the prospect of increased passenger numbers, which would allow DAA to realise economies of scale and thus justify a lower price cap. Chart 1 above illustrates that these downward pressures remain important in our final decision.

5. The entire difference between the 2013 and 2019 price caps can be explained by:
 - updating the 2009 Determination to reflect actual data on DAA operating costs and commercial revenues, and
 - revising the cost of capital down 120 basis points from the value used in 2009 to reflect the historically low interest rates available in the financial markets today.

6. We also see scope for DAA to realise economies of scale in the next few years, as passenger numbers are forecast to grow. However, this effect on the price cap is more than offset by a higher allowance for capital costs than we have made in the past.

7. A higher allowance for capital costs is one of the main changes we have made between the Draft and Final Determinations. This upward revision in capital allowance is consistent with representations from many, but not all, respondents to the Draft Determination. This change is consistent with the Government’s draft National Aviation Policy (NAP) notified to us after the Draft Determination and complies with the Ministerial Direction we received on 15 September 2014. Our price-cap calculations now allow DAA to invest €341m, with further trigger allowances of €308m available to fund runway capacity enhancements or to meet security needs should they arise. The amount allowed is 62% higher than DAA spent in the period 2010-2014 (excluding T2). Our allowance corresponds to almost 90% of what DAA sought in its CIP, and is €47m more than we proposed to allow in our Draft Determination.

Chart 2: Comparing Final Capital Allowance to CIP and 2010-14 Spend



8. Two other important changes we have made since May are to increase our passenger forecast and our allowance for operating costs. We indicated in our Draft Determination that we would update our passenger forecast in response to new information. The latest available outturn data suggests passenger numbers this year will exceed the level we previously assumed for 2015.
9. In revising our allowance for operating costs, we have addressed concerns about the need for the airport to have sufficient security staff available to comply with safety and security standards. We have also accepted representations expressing doubts about the ability of DAA to realise the more ambitious cost savings envisaged for staff costs. Finally, we have accepted that DAA should be able to recover an extra sum, over and above the amounts users were asked to pay in 2005, to make the lump-sum payment necessary to implement the recommendations of the Government appointed Expert Panel that looked into resolving the Irish Airlines Superannuation Scheme (IASS) dispute. Our overall allowance for operating costs for Dublin Airport requires DAA to find efficiency savings over the next five years of about 4%, after controlling for scale effects.
10. The target we have set DAA for commercial revenues is, on a per-passenger basis, to keep these broadly constant in real terms. We expect DAA to undertake a number of investments in the next five years to enhance these revenue sources, but believe that per-passenger revenues decline as passenger numbers grow. These two effects largely cancel one another out.
11. On capital costs, aside from the amount of investment allowed, we have also revised both the opening Regulatory Asset Base (RAB) and the return of capital (depreciation) allowed each year. The change in the opening RAB reflects a revised treatment of the cost overspend on the second terminal, updated estimates of 2014 capital expenditure (most notably, the apron stand development trigger was met in July 2014 and DAA will start work on this project this year), and various relatively minor amendments in how we reconciled capital expenditure in the period 2010 to 2014.
12. We have continued to strive for a smooth decline in the price cap, rather than a large one-off drop in 2015. We achieved this in the Draft Determination by adjusting our depreciation profile. We have continued with that approach in our Final Determination but, since other components in our calculations have changed, the overall amount of depreciation allowed in our calculations has also changed.
13. The level of the price cap is conditional on DAA providing a suitable quality of service. Each annual cap could be lowered by up to 4.5% should DAA consistently fail to meet the service targets set. The targets are summarised in the table below. They are higher than or equal to the targets set in 2009. With the exception of security queues, all targets will be met by DAA if it continues providing the level of service it has provided in the last three years. We have revised down some of the targets for passenger survey results since the Draft Determination, to avoid penalising DAA if it offers a quality of service that exceeds that currently provided by most other airports.

Table 2: Quality of Service Targets

Measure	Target
Percentage of passengers queuing for less than 30 minutes	100
Percentage of time out-bound baggage handling system unavailable for more than 30 minutes during hours of operation	0
Percentage of time in-bound baggage handling system available during hours of operation	99
All passengers (overall satisfaction)	3.9/5
Ease of way finding through airport	3.9/5
Flight information screens	3.9/5
Cleanliness of airport terminal	3.9/5
Cleanliness of washrooms / toilets	3.5/5
Comfort of waiting / gate areas	3.3/5
Courtesy, helpfulness of airport staff	3.8/5
Courtesy, helpfulness of security staff	3.8/5
Internet / Wi-Fi	3.1/5

14. The Determination allows DAA to operate and develop Dublin Airport in a sustainable and financially viable manner. In reaching this conclusion, we have assessed the financial viability of a standalone Dublin Airport only entity. This is an approach DAA advocated and one we adopted in the Draft Determination. Even allowing for dividend payments and using Dublin Airport's reported debt, rather than a notionally efficient level of debt, we believe our Determination is sufficient for an efficient operator to operate and develop the airport. Our approach to assessing financeability has had regard to regulatory precedents, most notably the UK Competition Authority's review of Northern Ireland Electricity. We also considered regulatory precedents in finalising other parts of our Determination, including in our treatment of pensions and when reconciling out-turn capital expenditure. We are satisfied that given our approach to regulation an efficient operator should be able to secure lender confidence on the basis of this Determination, in keeping with the Ministerial Direction.
15. In conclusion, we are satisfied that in making this Determination we have complied with the Ministerial Direction in the context of meeting our three statutory objectives. We have protected the interests of current and prospective users, facilitated the efficient and economic development of Dublin Airport to meet the requirements of users, and enabled DAA to operate the airport in a sustainable and financially viable manner. Satisfying these three statutory objectives, given their potentially conflicting implications, has required making certain judgement calls.
16. The rest of this document sets out our Determination and provides a report giving the reasoning. The report includes material describing how we addressed representations received. Copies of those representations, the Ministerial Direction, and various annexes to this document (including reports we commissioned from consultants to assist us) are available on our website.

Price Cap

DAA shall ensure that, for each year of the regulatory period 2015–19, the level of revenue collected from airport charges, expressed as a per passenger yield, does not exceed the maximum permitted revenue per passenger, P_t , as set out by the following formulae. In the event that DAA should collect more than permitted, it shall arrange to rebate users within 90 days of the year ending a sum sufficiently large such that the revenues collected net of this sum, on a per passenger basis, do not exceed the maximum permitted revenue per passenger.

Regulatory Period 1 January 2015 to 31 December 2015

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2015 shall be equal to:

$$P_{2015} = (\text{€}10.30 + \text{Trigger}_{2015}) * (1 + \text{CPI}_{2014}) * \text{QS}_{2015}$$

Where:

Trigger_{2015} = the sum of

€0.10 if declared peak capacity in the busy hour reaches 37 departures prior to the end of 2015 (this remunerates the additional line-up points project); plus

€0.07 if prior to the end of 2015 Hold Baggage Screening Standard 3 is mandated for terminal 2 by regulatory authorities; plus

€0.06 if prior to the end of 2015 Pier 2 is segregated, provided this segregation is mandated by a regulating authority

CPI_{2014} is the percentage change (whether positive or negative) in the consumer price index between July 2014 and October 2014.

QS_{2015} = one minus the sum of

0.0005 * number of days in 2015 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2015 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2015 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the *'all passengers' overall satisfaction with*

the airport' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*ease of way-finding through airport*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*flight information screens*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*cleanliness of airport terminal*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.5 in the '*cleanliness of washrooms*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.3 in the '*comfort of waiting/gate area*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in 2015, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in 2015, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.1 in the '*Internet Access / Wi Fi*' category of the ACI survey in 2015, such that the value never exceeds 0.0025 (0.25%).

Regulatory Period 1 January 2016 to 31 December 2016

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2016 shall be equal to:

$$P_{2016} = (\text{€}9.87 + \text{Trigger}_{2016}) * (1 + \text{CPI}_{2015}) * \text{QS}_{2016} + k_{2014}$$

Where:

Trigger_{2016} = the sum of

€0.59 if passenger traffic exceeds 25mppa in a 12 month period prior to the end of 2015 (this remunerates the northern runway project); plus

€0.10 if declared peak capacity in the busy hour reaches 37 departures prior to the end of 2016 (this remunerates the additional line-up points project); plus

€0.07 if prior to the end of 2016 Hold Baggage Screening Standard 3 is mandated for terminal 2 by regulatory authorities; plus

€0.06 if prior to the end of 2016 Pier 2 is segregated, provided this segregation is mandated by a regulating authority

CPI_{2015} is the percentage change (whether positive or negative) in the consumer price index between July 2014 and October 2015.

QS_{2016} = one minus the sum of

0.0005 * number of days in 2016 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2016 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2016 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*ease of way-finding through airport*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*flight information screens*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*cleanliness of airport terminal*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.5 in the '*cleanliness of washrooms*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.3 in the '*comfort of waiting/gate area*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in 2016, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in 2016, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.1 in the '*Internet Access / Wi Fi*' category of the ACI survey in 2016, such that the value never exceeds 0.0025 (0.25%).

k_{2014} is a correction per passenger to be made in the regulatory year 2016 on account of any under collection by DAA in the regulatory year 2014 (capped at 5% of P_{2014}). It is derived from the following formula:

$$k_{2014} = \text{minimum}((P_{2014} - P_{2014, \text{outturn}}), (0.05 * P_{2014})) * \\ * (1 + I_{2014}) * (1 + I_{2015}) * \\ (22,371,476 / \text{Pax}_{2016})$$

where $P_{2014, \text{outturn}}$ is the outturn revenue per passenger in 2014; Pax_{2016} is the Commission forecast for total annual passengers at Dublin Airport in 2016, Pax_{2016} is as set out in this Determination. 22,371,476 is the 2014 passenger forecast from the 2009 Determination.

I_{2014} is the average daily three-month interest rate between 1 November 2013 and 1 November 2014 using the Euribor rate or some other suitable measure, and I_{2015} is the average daily three-month interest rate between 1 November 2014 and 1 November 2015 using the Euribor rate or some other suitable measure.

Regulatory Period 1 January 2017 to 31 December 2017

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2017 shall be equal to:

$$P_{2017} = (\text{€}9.45 + \text{Trigger}_{2017}) * (1 + \text{CPI}_{2016}) * \text{QS}_{2017} + k_{2015}$$

Where:

Trigger_{2017} = the sum of

€0.59 if passenger traffic exceeds 25mppa in a 12 month period prior to the end of 2016 (this remunerates the northern runway project); plus

€0.10 if declared peak capacity in the busy hour reaches 37 departures prior to the end of 2017 (this remunerates the additional line-up points project); plus

€0.07 if prior to the end of 2017 Hold Baggage Screening Standard 3 is mandated for terminal 2 by regulatory authorities; plus

€0.06 if prior to the end of 2017 Pier 2 is segregated, provided this segregation is mandated by a regulating authority

CPI_{2016} is the percentage change (whether positive or negative) in the consumer price index between July 2014 and October 2016.

QS_{2017} = one minus the sum of

0.0005 * number of days in 2017 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2017 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2017 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*ease of way-finding through airport*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*flight information screens*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%); plus

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0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.5 in the '*cleanliness of washrooms*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.3 in the '*comfort of waiting/gate area*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in 2017, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in 2017, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.1 in the '*Internet Access / Wi Fi*' category of the ACI survey in 2017, such that the value never exceeds 0.0025 (0.25%).

k_{2015} is a correction per passenger to be made in the regulatory year 2017 on account of any under collection by DAA in the regulatory year 2015 (capped at 5% of P_{2015}). It is derived from the following formula:

$$k_{2015} = \text{minimum}((P_{2015} - P_{2015, \text{outturn}}), (0.05 * P_{2015})) * (1 + I_{2015}) * (1 + I_{2016}) * (Pax_{2015} / Pax_{2017})$$

where $P_{2015, \text{outturn}}$ is the outturn revenue per passenger in 2015; Pax_{2015} and Pax_{2017} are Commission forecasts for total annual passengers at Dublin Airport in 2015 and 2017 respectively, as set out in this Determination

I_{2015} is the average daily three-month interest rate between 1 November 2014 and 1 November 2015 using the Euribor rate or some other suitable measure, and I_{2016} is the average daily three-month interest rate between 1 November 2015 and 1 November 2016 using the Euribor rate or some other suitable measure.

Regulatory Period 1 January 2018 to 31 December 2018

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2018 shall be equal to:

$$P_{2018} = (\text{€}9.06 + \text{Trigger}_{2018}) * (1 + \text{CPI}_{2017}) * \text{QS}_{2018} + k_{2016}$$

Where:

Trigger_{2018} = the sum of

€0.59 if passenger traffic exceeds 25mppa in a 12 month period prior to the end of 2017 (this remunerates the northern runway project); plus

€0.10 if declared peak capacity in the busy hour reaches 37 departures prior to the end of 2018 (this remunerates the additional line-up points project); plus

€0.07 if prior to the end of 2018 Hold Baggage Screening Standard 3 is mandated for terminal 2 by regulatory authorities; plus

€0.06 if prior to the end of 2018 Pier 2 is segregated, provided this segregation is mandated by a regulating authority

CPI_{2017} is the percentage change (whether positive or negative) in the consumer price index between July 2014 and October 2017.

QS_{2018} = one minus the sum of

0.0005 * number of days in 2018 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2018 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2018 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*ease of way-finding through airport*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*flight information screens*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*cleanliness of airport terminal*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.5 in the '*cleanliness of washrooms*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.3 in the '*comfort of waiting/gate area*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in 2018, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in 2018, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.1 in the '*Internet Access / Wi Fi*' category of the ACI survey in 2018, such that the value never exceeds 0.0025 (0.25%).

k_{2016} is a correction per passenger to be made in the regulatory year 2018 on account of any under collection by DAA in the regulatory year 2016 (capped at 5% of P_{2016}). It is derived from the following formula:

$$k_{2016} = \text{minimum}((P_{2016} - P_{2016, \text{outturn}}), (0.05 * P_{2016})) * (1 + I_{2016}) * (1 + I_{2017}) * (Pax_{2016} / Pax_{2018})$$

where $P_{2016, \text{outturn}}$ is the outturn revenue per passenger in 2016; Pax_{2016} and Pax_{2018} are Commission forecasts for total annual passengers at Dublin Airport in 2016 and 2018 respectively, as set out in this Determination

I_{2016} is the average daily three-month interest rate between 1 November 2015 and 1 November 2016 using the Euribor rate or some other suitable measure, and I_{2017} is the average daily three-month interest rate between 1 November 2016 and 1 November 2017 using the Euribor rate or some other suitable measure.

Regulatory Period 1 January 2019 to 31 December 2019

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2019 shall be equal to:

$$P_{2019} = (\text{€}8.68 + \text{Trigger}_{2019}) * (1 + \text{CPI}_{2018}) * \text{QS}_{2019} + k_{2017}$$

Where:

Trigger_{2019} = the sum of

€0.59 if passenger traffic exceeds 25mppa in a 12 month period prior to the end of 2018 (this remunerates the northern runway project); plus

€0.10 if declared peak capacity in the busy hour reaches 37 departures prior to the end of 2019 (this remunerates the additional line-up points project); plus

€0.07 if prior to the end of 2019 Hold Baggage Screening Standard 3 is mandated for terminal 2 by regulatory authorities; plus

€0.06 if prior to the end of 2019 Pier 2 is segregated, provided this segregation is mandated by a regulating authority

CPI_{2018} is the percentage change (whether positive or negative) in the consumer price index between July 2014 and October 2018.

QS_{2019} = one minus the sum of

0.0005 * number of days in 2019 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2019 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2019 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*ease of way-finding through airport*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*flight information screens*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.9 in the '*cleanliness of airport terminal*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.5 in the '*cleanliness of washrooms*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.3 in the '*comfort of waiting/gate area*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in 2019, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin Airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in 2019, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin Airport does not receive a score of at least 3.1 in the '*Internet Access / Wi Fi*' category of the ACI survey in 2019, such that the value never exceeds 0.0025 (0.25%).

k_{2017} is a correction per passenger to be made in the regulatory year 2019 on account of any under collection by DAA in the regulatory year 2017 (capped at 5% of P_{2017}). It is derived from the following formula:

$$k_{2017} = \text{minimum}((P_{2017} - P_{2017, \text{outturn}}), (0.05 * P_{2017})) * (1 + I_{2017}) * (1 + I_{2018}) * (Pax_{2017} / Pax_{2019})$$

where $P_{2017, \text{outturn}}$ is the outturn revenue per passenger in 2017; Pax_{2017} and Pax_{2019} are Commission forecasts for total annual passengers at Dublin Airport in 2017 and 2019 respectively, as set out in this Determination

I_{2017} is the average daily three-month interest rate between 1 November 2016 and 1 November 2017 using the Euribor rate or some other suitable measure, and I_{2018} is the average daily three-month interest rate between 1 November 2017 and 1 November 2018 using the Euribor rate or some other suitable measure.

Explanatory Memorandum

Purpose of the Formulae

We have structured the formulae and determined key values of key terms in the formulae to effect the following policies:

- Provide a reasonable prospect for DAA to make a reasonable rate of return on the regulatory value of assets employed in providing services at Dublin Airport
- Reflect the levels of costs involved in operating Dublin Airport that we believe it is reasonable to assume, taking into account the scope for DAA to be cost effective
- Specify the formulae for determining allowed revenues, thereby securing the economic incentives for DAA to be cost effective
- Provide for increases in revenue allowances should certain milestones occur that warrant additional, substantial levels of capital expenditure by DAA
- Provide for decreases in revenue allowances should DAA fail to provide a suitable quality of service for users at Dublin Airport
- Provide for DAA to carry forward under-recovery of allowed revenues into subsequent regulatory periods provided the amount is relatively small, including any under-recovery of allowed revenues in 2014, to be consistent with the approach adopted in the third Determination
- Provide for the automatic correction of allowed revenues for the effects of inflation or deflation

Forecast Revenues Arising from the Formulae

We have specified the terms of the formulae to provide a reasonable prospect for DAA to make a reasonable rate of return on the regulatory value of the asset base employed in providing services at Dublin Airport. We consider this prospect is secured if the value of revenues from airport charges, adopting our assumptions for passenger numbers at the airport, over the period of the Determination equates to the value of our assumptions for the relevant costs and revenues from sources other than airport charges during the period plus the change in the value of the regulatory asset base at the start and end of that period. This equation is set out in the yield table below, which is based on the scenario of none of the triggers occurring.

Table 3: Yield Table

	2015	2016	2017	2018	2019
Operating costs (€m)	199.2	198.9	199.3	200.7	202.2
Commercial revenues (€m)	145.3	147.6	155.8	159.4	163.2
Opening RAB (€m)	1619.9				
Capital Investment (€m)	62.6	83.5	71.6	61.6	61.6
Return of capital (€m)	82.5	81.8	86.1	86.5	87.1
Return on capital (€m)	92.3	92.4	91.7	90.3	88.9
Closing RAB (€m)					1536.7
Total capital costs (€m)	174.8	174.2	177.7	176.8	176.0
Adjustments* (€m)	-0.9	-1.0			
Required revenue (€m)	227.7	224.5	221.3	218.1	215.0
Passengers (m)	22.1	22.7	23.4	24.1	24.8
Price cap (€)	10.30	9.87	9.45	9.06	8.68
Revenues Allowed (€m)	227.7	224.5	221.3	218.1	215.0

**Adjustments refer to the k and w factor from the 2009 Determination and an Access to Installations (ATI) fees adjustment. K adjusts for under-collection of aeronautical revenues by DAA. W takes account of differences between the expected and outturn CAR levy charged to DAA. The ATI adjustment adjusts for over-collection of ATI fees in the period 2010-2013.*

Triggers

We have included four triggers in the formulae that increase the maximum level of airport charges per passenger should events occur that require DAA to undertake additional capital expenditure.

The northern runway trigger would entail an increase in the price cap should passenger numbers exceed 25mppa in a 12-month period prior to the price cap year. The level of the increase is calculated to be sufficient to allow DAA to spend €246.9m (in July 2014 prices) building the runway. This sum includes allowances for planning, design, and house buyouts. The calculation assumes that DAA recovers the costs in equal sums over 50 years and allows a real rate of return on the capital of 5.8% per annum.

The trigger for additional line-up points would entail an increase in the price cap should the declared capacity of the runway in the busy hour reach 37 departures in the price cap year. The level of the increase is calculated to be sufficient to allow DAA to spend €30.2m (in July 2014 prices) building the line-up points. The calculation assumes that DAA recovers the costs in equal sums over 25 years and allows a real rate of return on the capital of 5.8% per annum.

The Hold Baggage Screening Standard 3 trigger would entail an increase in the price cap should DAA be required by the relevant regulatory authority to upgrade the HBS system for Terminal 2 prior to the end of 2019. The level of the increase is calculated to be sufficient to allow DAA to spend €13.1m (in July 2014 prices) on the system. The calculation assumes that DAA recover the costs in equal sums over 10 years and allows a real rate of return on the capital of 5.8% per annum.

The Pier 2 segregation trigger would entail an increase in the price cap should a relevant regulatory authority mandate the segregation of departing and arriving passengers in Pier 2 prior to the end of 2019. The level of the increase is calculated to be sufficient to allow DAA to spend €18.2m (in July 2014 prices) on this project. The calculation assumes that DAA recovers the costs in equal sums over 20 years and allows a real rate of return on the capital of 5.8% per annum.

Quality of Service

We have included in the formulae a quality of service term that decreases the maximum level of per passenger airport charges that DAA may levy should it fail to achieve targets for various metrics that we have identified as measuring important aspects of service quality at the airport. The quality of service term will never reduce the allowed level of airport charges by more than 4.5% in a year.

The size of the quality of service adjustment depends on which targets, if any, DAA fails to achieve. They are not all assigned the same weight or measured in the same manner. These differences reflect judgments by us about the appropriate weight to attach to the different measures.

Two of the measures entail deductions to the price cap according to the number of days that DAA fails to meet a required target. The other ten measures relate to performances in each quarter. While in previous Determinations the effect of missing these quarterly targets in the latter half of a year was to decrease the price cap a year later, for this Determination we have decided that the effect of missing a quarterly target in a given year will always be to adjust the price cap in that same year. Experience has shown that performance against these quarterly targets can be measured shortly after the year ending so there is no need to lag their effect on the price cap.

DAA will be responsible for arranging to have the necessary data collected for the service quality monitoring scheme. This includes participating in relevant surveys. If DAA fails to provide necessary data for the scheme, it will be assumed to have failed to satisfy those targets for which necessary data are unavailable. Should DAA advise that it is unable to collect the data in a suitable format, we may waive the affected targets or substitute in an alternative means for measuring the target. Any such changes will be notified.

For the purposes of measuring time in a security queue, the queue start position will be defined as where the passenger joins the end of the queue (which may or may not be inside the security queue area). The queue end position is where the passenger reaches the walk through metal detector. This definition of the queue end position is different to the definition used in the 2009 Determination.

The financial penalty associated with security queues exceeding 30 minutes will be waived in the event that the terminal is evacuated, there is industrial action by an airline or airline contractor that directly affects the security-search operation, or an airline's check-in facility fails and causes delays in passenger processing through security.

For outbound baggage facilities, DAA will be expected to avoid any delays of more than 30 minutes in providing ground handlers at check-in desks with access to functioning belts. DAA will have failed to satisfy this metric if a

baggage belt connecting to a check-in area is unavailable for more than 30 minutes *and* DAA is unable to provide an affected airline or ground handler access to an alternative baggage belt within 30 minutes of the party notifying DAA that it requires access to an alternative baggage belt.

To calculate the availability of the inbound-baggage belt, DAA will be expected to measure the total number of hours for which all inbound-baggage belts are available, and divide this by the number of operational hours for the system (currently defined as 7.00am until midnight). The calculation is:

$$\frac{\text{Total operational hrs per qtr} - \text{recorded downtime hrs of belts } \Sigma(A+B+\dots+Z)}{\text{Total operational hrs per qtr}}$$

The daily operational hours may change over time, and may differ between the two terminals.

Exemptions to the monitoring systems for baggage handling will apply in the following circumstances:

- To allow planned and preventative maintenance where it does not impact on operations;
- If system replacement and upgrades or adjacent construction works require the closing down of a baggage belt or belts, where this is done in consultation with users and the time period is specified in advance (if work extends beyond this period, then the additional downtime *will* be included in the monitoring scheme);
- If any fault or misuse or abuse or malicious actions caused by third parties results in downtime;
- If any fault or stoppage occurs as a result of ground handler or airline resource issues within the baggage hall leading to chutes full and system dieback;
- If any fault or stoppage has been observed by an airline or airline contractor and not subsequently reported to DAA or if any recorded downtime where a fault has been reported by an airline or their agents but, when the engineer attends the site, no fault is found and the equipment is working;
- If any fault or stoppage occurs as a result of any resource issue or industrial action by a ground handler or airline;
- In the event of fire-alarm activation, sprinkler activation, terminal evacuations, emergency-stop activations or maintenance to address pressing safety concerns;
- In the event of serious disruption caused by weather.

For the inbound-baggage system, an exemption will also apply if there are delays in passenger processing through immigration. For the outbound-baggage system, an exemption will also apply where any fault or stoppage results from insufficient airline check-in capacity leading to a baggage injection rate that exceeds the system's capabilities.

More generally, if DAA fails to meet a target, we will consider any evidence of extenuating circumstances that DAA may provide.

1. Introduction

- 1.1 The maximum level of charges that the Dublin Airport Authority (DAA) may levy at Dublin Airport is set out in this Determination, along with the reasoning for our decision (including the reasons for accepting or rejecting representations received during the consultation period prior to making the Determination). Airport charges include charges for taking-off, landing and parking aircraft, for the use of air bridges, for arriving and departing passengers, and for the transportation of cargo. The Determination will last for five years, from 1 January 2015 until 31 December 2019. As in past determinations, we have expressed the restriction on airport charges as an annual per passenger price cap.
- 1.2 We have arrived at this Determination following a lengthy process. We have published a number of consultation papers, met with interested parties, engaged consultants, and analysed data and information drawn from various sources. This report should be read in conjunction with the analysis and discussion in those earlier consultation papers.
- 1.3 We published our consultation papers in line with the timetable we published in our 2012 Annual Report to the Minister for Transport. In July 2013 we published an Issues Paper which invited parties to comment on what regulatory policies we should adopt, what methodologies we should apply, and what data sources we should use. The paper included data showing DAA's performance to date, a comparison with forecasts from 2009, and a discussion of some of the methodologies and data sources that might be used. Four parties made formal responses to that paper.
- 1.4 In May 2014 we published our Draft Determination. That gave parties statutory notice of our intention to make a determination. The document set out a proposed annual price cap and the reasoning for our proposal. We allowed a statutory consultation period of two months. Thirty three parties, listed in Appendix 1, responded to the Draft Determination. We offered all respondents an opportunity to meet with us to discuss their representations. Aer Lingus, British Airways, DAA, the DAA Trade Unions, Dublin Chamber of Commerce, the enterprise agencies,² the Irish Aviation Authority (IAA), the Irish Air Line Pilots Association (IALPA), the International Air Transport Association (IATA), Ibec, the Irish Congress of Trades Unions (ICTU), Norwegian Airlines and Stobart Air all accepted the offer. In making our Determination, we have carefully considered all the representations received. In doing so, we have sought additional information from some parties, such as asking for details from the IAA on security requirements that Dublin Airport will have to satisfy in the coming years.
- 1.5 We received two pieces of correspondence from the Minister for Transport, Tourism and Sport and his department after the publication of the Draft Determination that were relevant when finalising our Determination. On 9 July we were notified that the draft National Aviation Policy issued in May

² We received a joint response from Forfas, IDA and Enterprise Ireland, referred to throughout as the enterprise agencies. At the meeting the group of agencies were represented by Forfas which has been integrated with the Department of Jobs, Enterprise and Innovation since 1 August 2015.

2014 should be regarded as a statement of present aviation policy to which we should have due regard. Subsequently, on 15 September we received a Ministerial Direction setting out a general policy direction which we should comply with when making our Determination.

- 1.6 To assist our work, we commissioned a number of studies by consultants. Steer Davies Gleave (SDG) looked at the operating efficiency of DAA while Ernst & Young (EY) looked at the proposed costs of investments in DAA's capital investment program. Drafts of both of those reports were published at the time of Draft Determination. Final reports are published as annexes to this Determination. Prior to finalising their reports, both EY and SDG were asked to respond to the representations received. Since the Draft Determination, we commissioned SDG to conduct a separate study looking at regulatory precedents relating to the reconciliation of past capital expenditure. This study is also attached as an annex.
- 1.7 To make this Determination, where possible we have relied on information in the public domain, or that could be placed in the public domain. In many instances, information has been provided to us by interested parties, sometimes following an information request. This includes a number of information requests to DAA. We have sought to satisfy ourselves that the information that we have relied upon has been consistent with other available information, and more generally to correct for any possible errors. DAA alleged a number of errors in the Draft Determination. In many cases, on further review we concluded that instead DAA's objection reflected a difference of opinion on the appropriate judgement to be made, rather than an actual error. We have satisfied ourselves that we have corrected any actual errors that DAA has found, while separately considering whether there is merit in varying our judgement where the representation from DAA (or other parties) suggests we adopt an alternative point of view.
- 1.8 In summary, we are satisfied that the process we followed to arrive at this Determination was appropriate, proportionate and transparent. It was similar to the process followed in past Determinations. More importantly, it far exceeds the statutory requirements for our process.
- 1.9 Our decision has ultimately depended on a matter of judgement in deciding how to balance the various statutory objectives and the Ministerial Direction when assessing the available evidence. We are satisfied that, overall, this Determination strikes an appropriate balance.
- 1.10 This Determination on the maximum levels of airport charges that may be levied by Dublin Airport Authority, now named daa, in respect of Dublin Airport is made pursuant to section 32 of the Aviation Regulation Act, 2001, as amended by the State Airports Act, 2004 ("the Act"). The Determination on airport charges set out in this document is labelled the "price cap". The Commission is satisfied that this Determination has achieved its statutory objectives when making a determination as set out in section 33 of the Act and that it has had due regard to the various factors set out in that section.
- 1.11 The report set out hereunder gives an account of the Commission's reasons for making this Determination together with its reasons for

accepting or rejecting any representations made to it during the statutory consultation period.

Structure of Report

1.12 The remainder of this report follows a similar structure to both the Issues Paper and the Draft Determination:

- Section 2 sets out how we complied with the Ministerial Direction;
- Section 3 describes our approach to regulation;
- Section 4 discusses our passenger forecast;
- Section 5 sets operating expenditure targets;
- Section 6 sets commercial revenue targets;
- Section 7 deals with capital costs (reconciliation of past expenditures, future investment needs, the cost of capital, and the return of capital);
- Section 8 explains how our proposals enable DAA to operate the airport in a sustainable and financially viable manner;
- Section 9 discusses the expected quality of service at Dublin Airport;
- Section 10 addresses the separation of Shannon Airport, price differentiation and the price-cap formula; and
- Section 11 shows how we have complied with our statutory objectives and had due regard to various statutory factors, typically by referring to an earlier relevant section of the report.

1.13 In sections 3-10, the structure is to set out our conclusions, summarise the representations received from parties, and then to set out the reasoning for our final decision.

1.14 The spreadsheet model used to calculate the final price cap, which forms part of this report, is available on our website. Appendices to this report list the parties that responded to the Draft Determination; show econometric results for models used to help forecast passenger numbers and commercial revenues; summarise responses and decisions on capital spending reconciliation and allowances; discuss the annuity calculation used; and provide explanations of acronyms used in the report. There are also a number of annexes to this report, including the reports by outside consultants that we commissioned.

2. Ministerial Direction and Policy Notification

Ministerial Direction

2.1 The Minister for Transport, Tourism and Sport sent a letter dated 15 September 2014 containing a direction under Section 10 of the Aviation Regulation Act, 2001. This section empowers the Minister to give "...such general policy directions as he considers appropriate to be followed by the Commission in the exercise of its functions..." The 2014 Direction relates to our function to set a maximum level of airport charges that DAA may levy at Dublin Airport. The letter referred to earlier Ministerial Directions, issued to us in 2001, 2005, 2007 and 2009, and said that they remain in place. We have carefully considered the contents of the Minister's letter and followed the Direction.

2.2 There is an overlap between the Ministerial policy direction and the draft National Aviation Policy previously notified to us by the Department of Transport, Tourism and Sport on 9 July 2014. We are required to have due regard to policy statements notified to us when making a determination on airport charges. We were notified that:

- the draft National Aviation Policy issued by the Department on 21 May 2014 should be regarded as a statement of present aviation policy to be taken into account when making the determination, and
- it is Ministerial policy to seek a dividend from DAA from 2014 onwards.

2.3 The later policy direction given by the Minister helped us by highlighting those aspects of the draft National Aviation Policy that are of particular significance when making an airport charges determination. Accordingly, the manner in which we have had due regard to the draft National Aviation Policy (discussed later in this section) is consistent with the policy direction given by the Minister.

2.4 The Minister sought to clarify policy as regards the financially sustainable development of Dublin Airport. In that regard, he directed us to

"ensure that the Dublin Airport Authority's financial viability is protected in order to implement Government policy on:-

- *The role of Dublin Airport as an international gateway for Ireland, including as a secondary hub for air traffic flows between Europe/Asia and the US, and its strategic role in relation to air access for the tourism sector, inward investment and general economic development;*
- *The desirability that Dublin Airport should have the terminal and runway facilities to promote direct international air links to key world markets, including the new high growth emerging economies, and the importance of maximising the use of that infrastructure and planning for the future in that context;*
- *The sustainable operation of Dublin Airport on a commercial basis without recourse to Exchequer funding or an equity injection by the State and in that context, the need to secure lender confidence and raise debt financing on a cost efficient basis."*

- 2.5 We received this Direction after we published our Draft Determination. In making this Determination, we have carefully considered how best to comply with our statutory objectives, having regard to representations received from parties, while still complying with the requirements of this Direction.
- 2.6 In making a Determination, one of our objectives is "...to *enable* Dublin Airport Authority to operate Dublin Airport in a sustainable and financially viable manner" (our emphasis). It is for DAA to *ensure* it operates and develops the airport in a sustainable and financially viable manner. Mindful of our statutory obligations and having considered the 2014 Direction carefully, we are satisfied that we have complied with the Direction in making this Determination. The three specific government policies set out in the Direction are addressed in turn below.

The role of Dublin Airport as an international gateway for Ireland, including as a secondary hub for air traffic flows between Europe/Asia and the US, and its strategic role in relation to air access for the tourism sector, inward investment and general economic development

- 2.7 We continue to believe that it is crucial that the airport offers users a suitable quality of service at a cost-effective price such that it encourages and incentivises greater air access and greater investment, thereby contributing to the general economic development of the State. This Determination allows a price cap sufficient to enable DAA, provided it is efficient, to fund a substantial investment program that will allow it to provide users with a suitable quality of service into the future while permitting it to cover operating costs necessary today to provide current users with a suitable service.
- 2.8 Only when building Pier D and a new terminal has DAA's capital expenditure exceeded the base level of investment that we have allowed in this Determination. We have furthermore made provision for additional investment should certain trigger events occur, related to security requirements or runway capacity needs at the airport. In arriving at the overall allowance, we have made allowances for DAA to develop Dublin Airport as a secondary hub for air traffic flows between Europe/Asia and the US, most notably by making an allowance for a new transfer facility in terminal two. Furthermore, we have allowed DAA considerable discretion in what investments it actually makes in the next five years, which will allow it to adapt and refine its investment plans over time to best fulfil its strategic role.

The desirability that Dublin Airport should have the terminal and runway facilities to promote direct international air links to key world markets, including the new high growth emerging economies, and the importance of maximising the use of that infrastructure and planning for the future in that context

- 2.9 In our 2007 Interim Review we made an allowance for DAA to build a second terminal. We continue to allow DAA to recover some of those investment costs in this Determination, as well as operating costs sufficient to operate both terminals.
- 2.10 Regarding suitable runway facilities, we have made an allowance for DAA

to recover a sum sufficient to build a runway according to the specification proposed by DAA in its Capital Investment Plan. This comes with the proviso that passenger numbers should have exceeded 25 million in a twelve-month period, since the airport already has sufficient runway capacity to handle existing levels of demand. We have also indicated that remuneration of a new runway into the future will depend on DAA addressing the concerns some users have expressed about the possibility of the existing cross-wind runway closing. It would not be maximising the use of existing infrastructure to proceed with building a new runway if the end result is an airport closed to incoming traffic a number of days each year.

- 2.11 Provision also exists for DAA to further enhance current runway capacity by building additional line-up points. We believe that this approach is consistent with maximising the use of existing runway infrastructure, while also planning for the future.

The sustainable operation of Dublin Airport on a commercial basis without recourse to Exchequer funding or an equity injection by the State and in that context, the need to secure lender confidence and raise debt financing on a cost efficient basis

- 2.12 We have had to have regard to similarly worded directions in both 2007 and 2009, considering DAA's ability to finance additional capacity or operate the airport on a commercial basis without access to Exchequer funding or an equity injection by the State. In both cases, we looked at how DAA Group's funds from operations to debt (FFO: debt) ratio might evolve under given scenarios for airport charges, passenger numbers and costs.
- 2.13 For this Determination, we have continued to look at the FFO: debt ratio, but have narrowed our focus to looking at a hypothetical Dublin Airport only entity. This change in approach was advocated by DAA. The rationale for the change is that it protects current and prospective users from having to pay higher airport charges if DAA Group incurs losses elsewhere, while not requiring DAA Group to subsidise users at Dublin Airport. We are satisfied that our Determination has struck an appropriate balance between enabling DAA to operate Dublin Airport in a sustainable and financially viable manner and protecting the interests of current and prospective users.
- 2.14 We are mindful that the need for DAA to secure lender confidence and raise debt finance on a cost-efficient basis has to be considered in conjunction with our statutory objectives. To protect the interests of current and prospective users and to encourage the efficient development of Dublin Airport, we provide incentives for DAA to manage its costs. We do not automatically pass through all costs that DAA incurs. This extends to the way that we treat outturn investment costs that exceed allowances previously made for such investments. The challenge therefore is to make a Determination that protects current and prospective users while enabling DAA to secure lender confidence. Our Determination is made such that an investor should be willing to invest in DAA if the company operates and develops Dublin Airport in an efficient and economic manner. We have had regard to how other price-cap regulators proceed, and satisfied ourselves

that our approach is one that would-be investors should be familiar with. In particular our treatment of cost overruns and our assessment of financial viability have been guided by regulatory precedents. Efficient companies can and do secure financing under similar regulatory regimes, so we are satisfied that we have enabled DAA to secure lender confidence.

- 2.15 The further complication is the restriction on DAA securing Exchequer funding. To raise debt financing on a cost effective basis, lenders may look for evidence that the equity investor is willing to commit additional capital. The Ministerial Direction means that this option is not available to the DAA Group. Most companies operating on a commercial basis cannot and do not increase prices to avoid the need to inject new capital or raise new equity. We have satisfied ourselves that there is no need for DAA to increase prices at Dublin Airport to secure lender confidence, unless it needs to start building a second runway. There are at least two options available to DAA aside from seeking Exchequer funding or higher airport charges. First, it could retain more of its earnings by reducing the level of dividends paid by Dublin Airport. As we later show, this does not require Dublin Airport pay no dividend. Second, the DAA Group itself could reduce the gearing of Dublin Airport, without having to secure Exchequer funding. The attraction of both these options is that they better accord with our statutory objective to protect the interests of current and prospective users.
- 2.16 We are satisfied that our Determination complies with the Ministerial Direction to the extent that is possible while also complying with our statutory objectives.

Continued Compliance with past Ministerial Directions

- 2.17 The Minister's policy direction stated that previous policy directions given to us still stand. We are satisfied that this Determination reflects those directions.
- 2.18 In previous determinations on airport charges we set out how we complied with Ministerial policy directions given at the time of making those decisions. Set out below how we continue to comply with those directions.

The 16 August 2001 Ministerial Direction

- 2.19 Having regard to the contents of the 2001 Direction we came to the conclusion that for Dublin Airport this meant providing it with sufficient resources to provide for its continued infrastructure development. We stated that providing for continued infrastructure development at Dublin Airport was best met by providing Dublin Airport with a separate price cap. This Determination provides Dublin Airport with a price cap that provides for continued infrastructure development at Dublin Airport and thus continues to comply with that 2001 Direction.

The 18 August 2005 Ministerial Direction

- 2.20 In analysing that 2005 Direction we concluded that its clear direction was to make a Determination that enabled Dublin Airport to add additional capacity in an efficient and timely manner. We further considered the

implications for sustainability and financial viability of the capital expenditure programme for DAA and satisfied ourselves that DAA would be able to finance the programme. We are satisfied that we continue to comply with the 2005 Direction and that this Determination will enable DAA to add additional capacity at Dublin Airport in an efficient and timely manner. Moreover, this Determination continues to make sufficient allowance to meet the financing needs during the current Determination period.

The 3 April 2007 Ministerial Direction

2.21 In complying with the 2007 Direction we made a Determination that provided for infrastructure capacity increases in line with growth in air services at Dublin Airport, as sought by the National Development Plan 2007-2013. We also comprehensively reconsidered the sustainability and financial viability implications of the capital expenditure programme, and in particular the impact of providing a second terminal. The Determination also considered the implications of the restructuring of the State Airports. This Determination continues to provide for infrastructure capacity increases in line with growth at Dublin Airport and also considers the sustainability and financial viability implications of the capital expenditure programme, and in particular the impact of providing a second runway. It has had regard to the restructuring of the State Airports.

The 27 October 2009 Ministerial direction

2.22 In complying with the 2009 direction, we believed that it was crucial that the airport offers users a suitable quality of service at a cost-effective price such that it will encourage and incentivise greater air access, greater investment and thereby contribute to the broader economic development of the State. Therefore, the Determination included a quality of service regime. It provided a price cap sufficient to enable DAA, provided it was efficient, to fund what we considered to be an appropriate level of investment to provide users with a suitable quality of service into the future and to cover the operating costs necessary to provide such a quality of service today. We were also mindful that general economic development would be hindered if access to Dublin Airport was restricted because of capacity constraints. The 2009 Determination addressed this, most specifically through its treatment of possible costs associated with adding new runway and terminal capacity, items that were separately identified in the 2009 Direction. We continue to comply with that direction by the manner in which we have set out an appropriate quality of service regime and the making of a price determination sufficient to (i) facilitate the efficient and economic development of Dublin Airport and (ii) enable DAA to fund what we consider to be an appropriate level of investment to provide users with a suitable quality of service into the future and to cover the operating costs necessary to provide such a quality of service today.

2.23 In 2009, we were also satisfied that the Determination complied with a requirement to enable DAA to protect its financial viability while implementing government policy requiring Dublin Airport to have terminal and runway facilities suitable for offering international air links to key world markets. The Determination made allowance for DAA to recover investment costs associated with building a second terminal as well as

operating costs associated with operating T2. In addition, it made allowance for DAA to recover investment costs associated with the provision of a new runway. We continue to comply with this direction in that we continue to provide for the recovery of investment costs associated with building the second terminal (T2), which opened in 2010, as well as costs associated with operating it and we again make allowance for investment in a new runway suitable for offering international air links to key world markets.

- 2.24 Part of the 2009 Ministerial direction set out the government policy that Dublin Airport Authority operate on a commercial basis without recourse to Exchequer funding or an equity injection by the State and in that context the need to secure lender confidence and raise debt financing on a cost efficient basis. We considered that the analysis we undertook looking at DAA's financial viability was appropriate for striking a balance between protecting the interests of current and prospective users and enabling DAA to operate the airport in a sustainable and financially viable manner. We were mindful that the need for DAA to secure lender confidence and raise debt finance on a cost efficient basis needed to be considered in conjunction with our statutory objectives. We continue to comply with this direction and have made a Determination that enables DAA to operate in a sustainable and financially viable manner without recourse to Exchequer funding or an equity injection and having regard to the need to secure lender confidence and raise debt finance on a cost efficient basis. We have done so whilst also having regard to our statutory objective of protecting the interests of current and prospective users.
- 2.25 The manner in which we have followed those policy directions on investment at the State Airports, including Dublin, in previous determinations is tied in with our "RAB-based" approach to regulation. The calculations for setting a cap on airport charges seek to allow DAA to recover investment costs over a number of years, potentially across a number of determinations. Our calculations of the Regulatory Asset Base (RAB), depreciation charges and the return on capital all have regard to decisions about investment needs made in earlier determinations. An obvious example of this is how the opening RAB in 2015 has gone from €888m in 2010 to €1620m in 2015 due to the inclusion of investment costs associated with the development and entry into operation of the second terminal at Dublin Airport. Earlier policy directions made specific reference to the need for a second terminal at Dublin Airport. Thus, the opening RAB for 2015 internalises the previous policy directions referred to by the Minister in his most recent policy direction. In addition, we have had regard to related operating expenditure effects of investment at Dublin Airport.

National Aviation Policy

- 2.26 The draft National Aviation Policy describes many aspects of aviation policy with little or no link to a determination of the maximum levels of airport charges that DAA may levy at Dublin Airport. When making a determination, we can do no more than provide for a maximum level of airport charges that we believe is consistent with the possibility of DAA implementing the draft National Aviation Policy at Dublin Airport (in so far as DAA will be one of the main actors in its implementation). Therefore,

when following the Ministerial Direction and having due regard to the National Aviation Policy as notified to us, we have focused on those areas which relate to the operation and development of Dublin Airport by DAA and the current and future interests of users of Dublin Airport.

- 2.27 In particular, we have followed the Ministerial Directions and had due regard to the draft National Aviation Policy under the following headings: (i) aviation security, (ii) air services and connectivity, (iii) future capacity needs of Dublin Airport and (iv) growth at Dublin Airport.

Aviation Security

- 2.28 In the area of aviation security we have had due regard to the fact that Ireland is committed to implementing the security standards and recommended practices developed by ICAO at a global level and the European Union. We note that, in 2013, responsibility for monitoring compliance by all entities in the State with EU and international aviation security requirements was allocated to the IAA.
- 2.29 Furthermore, it is Government policy that Ireland will ensure that sustainable aviation security solutions are delivered nationally. In designing future security procedures to be incorporated into our National Civil Aviation Security Plan, a central consideration will be the perspectives of cost, efficiency and acceptability by passengers and air transport operators. In addition, Ireland will introduce a more targeted and comprehensive approach to compliance monitoring, developing requirements for a Security Management System similar to the successful approach already implemented in the field of safety.
- 2.30 We recognise that DAA has to comply with various security measures due to Ireland's membership of both ICAO and the EU.
- 2.31 Accordingly, we have carefully assessed DAA's proposals for capital expenditure in relation to security projects, as well as associated operating costs. We have also considered the representations by the IAA and other interested parties in relation to these topics. We also wrote to the IAA requesting further information on security needs, the response to which is published as an annex to this report. We believe that our decisions in relation to security projects made under the headings operating costs and capital expenditure (see Sections 5 and 7), are consistent with DAA adhering with its national and international obligations and implementing Government policy in this area.

Air Services and Connectivity

- 2.32 We note that it is Government policy that Ireland's objective in bilateral air transport negotiations will be to reach agreement on the basis of fifth freedom rights, on a reciprocal basis, taking account of EU criteria on fair competition. Such rights would allow airlines to pick up and drop off passengers in Ireland en route to other destinations (for instance an airline with a route from east or south of Europe stopping off in Ireland en route to North America). The Government believes that such routes would increase choice and connectivity for travellers to and from Ireland and increase the number of transit passengers using Irish airports. Although

fifth freedom rights often feature in the access rights agreed between states in bilateral air transport agreements, the exercise of such rights is often limited and in the past they have tended to be exercised mainly on long-haul routes.

- 2.33 We also note Government policy to continue to actively support EU efforts to negotiate full Open Skies agreements with third countries.
- 2.34 In relation to airlines, we note that Government policy is that Ireland will facilitate a market which is open to new entrants in order to maximise connectivity and competition with the objective of ensuring a wider range of services, such as long-haul and cargo services. Furthermore, we note that Government policy seeks to ensure that air-freight handling and custom facilities at Irish airports minimise delays and facilitate the efficient and timely delivery of outward and inward freight movements.
- 2.35 In addition, we note the Government's belief that US Preclearance is a factor that contributed to the growth of US connecting traffic at Dublin in recent years and is an asset that can be exploited to develop Dublin as a transit hub. Government policy is to ensure the continued delivery and development of US preclearance facilities at Dublin Airport with the objective that all US bound flights from Dublin are pre-cleared.
- 2.36 Accordingly, we have carefully assessed proposals by DAA for capital expenditure in relation to projects to provide for increased growth, connectivity, the handling of passengers transiting through the airport as a hub, air-freight handling, customs facilities and the use of US preclearance, together with associated operating costs. We have also considered representations made by interest parties in relation to these topics.
- 2.37 We believe that our decisions in relation to such projects made under the headings operating costs and capital expenditure (see Sections 5 and 7) are consistent with DAA implementing Government Aviation policy in this area.

Future capacity needs of the State airports

- 2.38 We note that it is Government policy that Ireland responds to forecast air passenger traffic developments in the Asia-Pacific region (particularly cities in China) and create good air connections to these countries to take advantage of business, tourism, cultural and educational possibilities. This is in addition to the scope for expansion in Ireland's air services connections for business and tourist purposes with our traditional trading partners in Europe and North America.
- 2.39 The Government believes that to ensure future connectivity and to deliver growth, it will be important that the State airports, Dublin in particular, have runways of sufficient length to enable services to operate to global emerging markets without weight restriction.
- 2.40 We note the assertion that using current aircraft fleets, it is not possible to reach many of these cities (in China and other Asia Pacific regions) from the existing runway at Dublin Airport.

- 2.41 The Government in its draft National Aviation Policy has recognised that a runway at Dublin Airport of in excess of 3,000m would serve the markets that are anticipated, based on expected aircraft fleets. This will enable connections for both business exports and international tourists and enhance the potential to develop Dublin Airport as a strong secondary European hub. Dublin Airport has secured the land needed for such a runway.
- 2.42 While planning permission has already been secured by DAA for the project, this planning permission may need to be revisited to take account of any future Government decisions on a second runway following the outcome of the infrastructure/capacity review that DAA will be required to carry out in 2015.
- 2.43 The objective of such reviews is to ensure that all of the main Irish airports, including Dublin, are well placed to accommodate passenger growth, changing passenger and freight needs and carrier needs. It is Government policy that these reviews should take into account enterprise and tourism policy objectives and targets. Given the ever increasing importance of direct access to long-haul destinations for enterprise development, the periodic review of capacity requirements at the main airports should carefully consider the implications of global developments in aircraft size and landing requirements. Companies such as DAA should seek to maximise efficiencies of existing runway infrastructure and to determine the appropriate timing of new runway developments in order to facilitate increased connectivity to international markets. The reviews should also consider other infrastructure developments required to accommodate the new generation of long distance wide-body aircraft in terms of aircraft size and landing requirements, to accommodate changing passenger, freight and airline needs.
- 2.44 Accordingly, we have carefully assessed proposals by DAA for capital expenditure projects to provide for increased growth, connectivity to the Far East and Asia, the handling of passengers transiting through the airport as a hub, air freight handling, a second runway over 3000m in length, infrastructure developments required to accommodate the new generation of long distance wide-body aircraft in terms of aircraft size and landing requirements and to accommodate passenger, freight and airline needs together with associated operating costs and the representations made by interest parties in relation to these topics.
- 2.45 We believe that our decisions concerning future capital expenditure needs (see Section 7) are consistent with providing for the implementation of the Government Aviation policy in this area. We note that Government policy mandates DAA to carry out reviews of capacity constraints and infrastructure needs at five year intervals, commencing in 2015, with a view to developing a new Master Plan for Dublin Airport a year later. Consequently, our Determination has to make an allowance for investment needs in advance of that exercise being complete. We believe that the total allowance for capital expenditure we have included in our price-cap calculations is appropriate to fund investments that might be needed prior to end 2019 to address capacity needs at Dublin Airport.

Creating growth at the State airports

- 2.46 The increasing importance of high-growth and high potential markets, such as Brazil, Russia, India and China, Middle East and Far East has been recognised by the Government and articulated in *A strategy and action plan for Irish Trade, Tourism and Investment to 2015*. A critical part of realising the opportunities that exist in these markets lies in ensuring good air connectivity to these markets, through both established and newly emerging air links.
- 2.47 The Government has noted that Dublin Airport's development as an interconnecting hub is itself also of great importance to the Irish aviation sector and the broader economy. It believes that an opportunity now exists to develop Dublin as a vibrant secondary hub, competing effectively with the UK and other airports, for traffic flows between Europe and the US.
- 2.48 A hub combines local passengers with transfer passengers enabling airlines to operate services to more destinations and more frequently than could be supported by local demand alone. This allows airport operators to utilise airport assets more efficiently and to drive down per passenger airport charges to the benefit of airport users and passengers. In this context, it is the Government's belief that the support and promotion of Dublin as a hub airport is an important means to maximising air access for the Irish economy. This will require support from relevant Government Departments and the State agencies involved in tourism marketing and trade developments.
- 2.49 It is Government policy that Dublin Airport will be promoted as a secondary hub airport.
- 2.50 Having regard to that policy, we have assessed proposals by DAA for capital expenditure on projects providing for increased growth, connectivity to the US, Far East and Asia, the handling of passengers transiting through the airport as a hub, air freight handling, a second runway over 3000m in length, infrastructure developments required to accommodate the new generation of long distance wide-body aircraft in terms of aircraft size and landing requirements and to accommodate passenger, freight and airline needs together with associated operating costs and the representations made by interest parties in relation to these topics.
- 2.51 Our decisions in relation to such projects made under the headings operating costs and capital expenditure (see Sections 5 and 7) are consistent with providing for the implementation of the Government Aviation policy in this area.

DAA Dividend

- 2.52 We understand that it is Government policy to seek a dividend from DAA from 2014 onwards. Therefore, it is the responsibility of DAA to make a dividend payment when in the view of the board of directors of DAA it is in a position to do so. That capability is directly linked to the financial viability of DAA. When making a determination on maximum levels of

airport charges at Dublin Airport, one of our objectives is to enable DAA to operate and develop Dublin Airport in a sustainable and financially viable manner. Therefore, we would ordinarily expect to enable DAA to make a dividend payment. We describe how we meet this statutory objective in Section 8.

- 2.53 Ultimately, the responsibility for ensuring that DAA is capable of paying a dividend rests with DAA and its management decisions. For example, if it decides to develop Dublin Airport City (which DAA forecasts will cost €1bn) its ability to pay a dividend may be constrained. Moreover, while we have had due regard to the need for DAA to pay a dividend, we also have to comply with our statutory objectives. This means protecting the interests of current and prospective users and allowing DAA to develop the airport in a sustainable and financially viable manner. If substantial investment is needed at Dublin Airport, it may not always be possible simultaneously to make allowances for investments needed to develop the airport efficiently and economically, protect users from higher airport charges, and provide for DAA paying a dividend.

3. Approach to Regulation

- 3.1 We have continued with the approach to regulation that has been applied in past determinations. There will be an annual price cap, limiting the maximum per passenger revenues from airport charges that DAA may levy on airport users. The Determination will last for five years.
- 3.2 In determining the cap, we have used a “building-blocks” approach. The building blocks are an estimate of efficient future operating expenditure, a return on capital, a return of capital (a depreciation allowance) and an estimate of future commercial revenues from certain activities at the airport. The latter of these building blocks (commercial revenues) is subtracted from the sum of the other three to generate a target amount of total revenues. This total is then divided by a forecast for passenger numbers to derive the annual per passenger price caps.
- 3.3 The inclusion of commercial revenues in our building-block calculations means that we might be placed in the camp of regulators that use a single rather than dual till when regulating airport charges. The definition of the regulatory till is something that we have consulted on since the last Determination.³ Following that exercise we have refined our approach, such that new investments in commercial activities for which users do not share DAA’s confidence might proceed outside the regulatory till (i.e. we would have no regard to either the costs nor the revenues of such a project when setting the cap). Nevertheless, we believe it remains the case that our approach is broadly consistent with single-till regulation.
- 3.4 The annual caps are structured such that each year the price cap changes in line with changes in the Consumer Price Index (CPI) less 4.2%. This is sometimes referred to as CPI-X regulation. It is a form of incentive-based regulation, since DAA has incentives to outperform the implicit targets that have been set. If it can attract more passengers or incur lower costs or generate additional revenues than we assumed when deriving the annual price cap, DAA will profit.

Representations Received on Approach to Regulation

- 3.5 DAA argued that the purpose of economic regulation was to set a maximum price to protect against monopolistic pricing, rather than to find a price floor. It suggested there was no evidence that DAA was behaving monopolistically: there was no evidence it was restricting volume, charging high prices, offering low service quality and no choice, or operating inefficiently. DAA claimed that it was subject to competitive pressures, including from its airline customers who have demonstrated an ability to shift their capacity dramatically.
- 3.6 ACI repeated its position that economic regulation needed to have more regard to competitive pressures facing airports. It thought that the form of regulation proposed did more than merely set a price cap, being prescriptive about the quality of service to be provided and what

³ See Commission Papers CP4/2010, CP1/2012 and CP3/2012, <http://www.aviationreg.ie/regulation-of-airport-charges-dublin-airport/policy-papers.124.html>

investments can proceed. A regulator using its powers in this manner needed to ensure a reasonable degree of commercial acumen in its decision-making process, or at least understand the market environment facing the airport.

- 3.7 DAA Trade Unions thought that the approach was too narrow, and suggested a range of factors that should be considered. They felt incentive regulation was punitive. It penalised DAA and its employees for cutting costs during the downturn. The allocation to DAA of all downside risk on passenger numbers seemed neither equitable nor incentivising, since there was no provision for possible extraordinary events over which DAA would have no control. DAA Trade Unions criticised the use of single-till regulation, suggesting that it was only the overall balance sheet of DAA as a whole that was supporting Dublin Airport. They queried the benefits of lower airport charges, suggesting it just transferred profits and revenues from DAA to the two main airlines (who were already profitable). Instead, DAA Trade Unions advocated regulation that complemented Government policy by facilitating the airport to deliver services and infrastructure to meet the needs of Ireland.
- 3.8 The enterprise agencies felt it was essential that the review of airport charges strike the right balance between providing good quality services and keeping costs as low as possible for end users. They welcomed the inclusion of passengers as well as airlines in the definition of users, and suggested that from an enterprise perspective the need was for continuing access to competitively price short and long haul destinations.
- 3.9 IATA was generally supportive of the approach and methodology used in the Draft Determination.
- 3.10 ICTU thought the Draft Determination was flawed, and an example of what is wrong with the current system of economic regulation. It supported the proposal in the draft National Aviation Policy to review the system of economic regulation in the sector and suggested that the 2014 price cap should be maintained until that review is complete.
- 3.11 Ryanair also suggested that the current regulatory system in Ireland was flawed. It referred to the UK Competition Commission findings in March 2009, reviewing the UK system of regulation on which the Irish regulatory regime was modelled. Ryanair argued that airlines are the best proxy for what passengers require at an airport. It supported requiring DAA to assume the risks that outturns deviate from the numbers assumed in building-blocks calculations.

Decision on Approach to Regulation

- 3.12 Many of the representations received concerning our approach to regulation call for changes that would require a change in legislation. Such comments might usefully inform the review of the system of economic regulation proposed in the draft National Aviation Policy. However, we are required to proceed on the basis of legislation currently in place. For this reason, we cannot defer making a determination until the Department of Transport, Tourism and Sport completes its review; nor can we choose not to make a determination on the basis that DAA is subject to competitive

pressures or already efficient.

- 3.13 We reject the suggestion that we have sought to find a price floor. Instead, we continue to interpret our statutory remit as consistent with setting price caps that promote economic efficiency. This entails seeking to realise productive, allocative and dynamic efficiency. Productive efficiency would entail providing a given level of service at minimum cost; allocative efficiency would require all users willing to pay for a service having access to that service subject to DAA recovering efficiently incurred costs; and dynamic efficiency requires investment decisions have regard to both current and future demand and costs. These are outcomes that we would expect to see in a competitive market.
- 3.14 The Determination is not prescriptive about what investments can proceed. The calculations underlying the price cap do arrive at a total by having regard to specific investment proposals included in DAA's CIP, but DAA nevertheless retains considerable discretion to adapt its capital expenditure in response to changing circumstances in the next five years. Indeed, the capital allowances in this Determination not dependent on a specific project proceeding are far greater than the amount allowed in 2009.
- 3.15 On quality of service, we think the interests of current and prospective users would not be protected if we did not set some targets in this regard. The targets set do not require DAA to improve on the service quality it is currently offering.
- 3.16 We have previously consulted on the definition of the regulatory till. We are satisfied that it is right that we have regard to certain commercial revenues when setting a cap on aeronautical charges given the demand complementarities. However, we have not had regard to all other activities and revenues that the DAA Group generates when setting the price cap. Moreover, our assessment of financial viability has looked at the question of whether DAA could operate Dublin Airport without support from the overall Group's balance sheet.

Duration of Price Cap

- 3.17 This Determination will last for five years. This seems to be a duration that strikes a reasonable balance between being too short or too long. Aer Lingus, DAA and IATA all supported a five-year duration when responding to the Issues Paper.

Allocation of Risks

- 3.18 We are satisfied that the allocation of risks in this Determination is appropriate. Someone will have to bear the risks of extraordinary events affecting passenger numbers over which DAA has no control; our approach is symmetric, assigning both the upside and downside risk to DAA. Moreover, outside of extraordinary events, DAA is the party most able to control passenger numbers at Dublin Airport. This Determination rewards DAA if it is able to promote additional traffic at Dublin Airport.

4. Passenger Forecasts

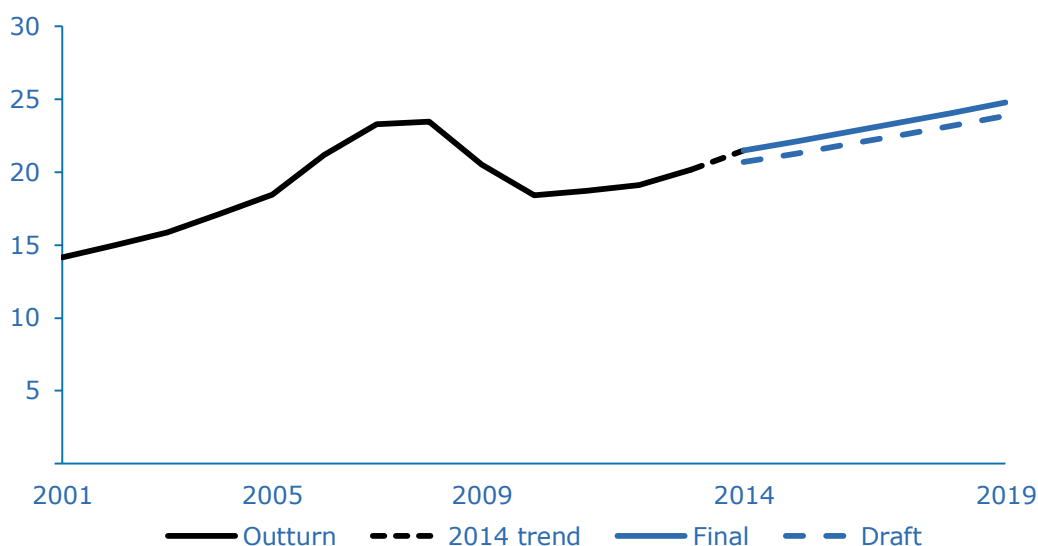
Table 4.1: Passenger Numbers Forecast

	2013	2014	2015	2016	2017	2018	2019
Passengers (m)	20.2	21.5	22.1	22.7	23.4	24.1	24.8
Annual Change (%)		6.6	2.8	2.9	2.9	2.9	2.9

Source: 2013 DAA outturns, 2014-2019 CAR forecasts.

- 4.1 We forecast that passenger numbers will grow steadily from 21.5m in 2014 to 24.8m in 2019, a compound annual growth rate of 2.9%.
- 4.2 This forecast is higher than the Draft Determination by about 0.9m per year. The difference is due to an updated estimation of the 2014 passenger numbers, using outturn data for the first eight months of the year. The growth rates in the years 2015 to 2019 are the same as the Draft Determination.

Chart 4.1: Passenger Numbers Forecast (m)



Representations Received on Passenger Forecasts

- 4.3 DAA were critical of our decision to use our own passenger forecast model rather than the model created by DAA. DAA also objected to our proposals for updating our forecast for the Final Determination.
- 4.4 DAA considered that growth in passenger numbers in the second half of 2013 and the first half of 2014 was above trend, and that the inflationary effect of these outturn figures on our forecast ought to be abated. DAA considered the sensitivity of our forecast to 2013-2014 passenger growth and to updates in GDP projections to be problematic.
- 4.5 DAA felt that we had not given sufficient justification for using our own model rather than DAA's. DAA claimed that the decision to use our own model placed "undue regulatory risk" on the airport.

- 4.6 DAA had previously shared its modelling methodology with airlines in the context of more than one consultation exercise. DAA stated that no airline objected to its methodology.
- 4.7 DAA outlined some of the characteristics of its model that distinguish it from ours. DAA's model divides total passenger numbers into segments representing different markets. It uses distinct growth drivers (projections of different countries' economic outputs) to grow these segments. The model outputs are also influenced by user-specified inputs representing "future market intelligence". DAA considered that these features made its model superior to ours in terms of its predictive capability, and stated that we had sacrificed accuracy in our model by placing too much weight on simplicity and transparency.
- 4.8 DAA and its consultants NERA criticised the standards of the regression analysis we performed. NERA stated that its own tests had indicated that our model suffered autocorrelation, and suggested that we should test for dynamic effects that may explain this autocorrelation. NERA also argued that we had not adequately addressed the fact that our regression variables were potentially non-stationary, and that this could have led to spuriousness in the estimated relationship between GDP and passengers.
- 4.9 DAA considered it wrong to use Irish GDP as the sole growth driver for the forecast. It also stated that our model did not take future market intelligence into account. It considered our decision to include a dummy variable for 2006 and 2007 in our regression analysis as tacit acceptance of the importance of market intelligence. At the same time it criticised the use of this dummy variable "to maintain the 1.15 relationship" (i.e. our estimated elasticity of passenger numbers to GDP of 1.15). It pointed out that if our estimated coefficients had been used to project passenger numbers at other Irish airports, these projections would not reflect the observed differences in demand trends at those airports.
- 4.10 DAA pointed out that if our estimated coefficients had been used to project passenger numbers from 2011-2014, these projections would have fallen short of actual growth.
- 4.11 DAA pointed out that if our estimated coefficients had been used to project domestic air passengers at Dublin historically, these projections would have failed to reflect the collapse in passenger numbers for that demand segment. This was construed as further evidence that our model made inadequate use of market intelligence.
- 4.12 DAA made comments on the potential interactions between the passenger numbers forecast and the other building blocks. DAA reiterated its disagreement with the elasticities of operating expenditure and commercial revenues to passenger numbers used in the Draft Determination. Effectively this means that the higher our forecast is than DAA's, the wider the gap becomes between our and DAA's projections of net revenues. DAA also argued that the passenger forecast we had proposed was not consistent with the capital expenditure allowances we were making. DAA stated that the disallowance of capex projects would limit the capacity of the airport so much that the actual number of passengers accommodated would fall short of DAA's "core" forecast.

- 4.13 Aer Lingus stated that the elasticity of passenger demand to GDP proposed in the Draft Determination seemed low. The airline considered a visual inspection of the data since 2001 to support an elasticity that was substantially higher than one. Aer Lingus cited elasticities for air travel in the UK as estimated by the UK Department for Transport in the range of 1.2 to 1.7. Aer Lingus also commented that these UK elasticities were towards the bottom of the range used by IATA for forecasting passenger numbers internationally. Aer Lingus produced an alternate forecast based on an elasticity of demand with respect to GDP of 1.3.
- 4.14 Dublin Chamber of Commerce drew attention to the fact that the our forecast in the Draft Determination was close to the "high" scenario DAA had produced in its regulatory proposition, whereas the "low" scenario was separated from our forecast by a more significant distance.
- 4.15 IATA argued that our forecast in the Draft Determination was too reliant on an individual variable – Irish GDP. IATA also claimed that we had erroneously failed to take supply side factors into account in fitting our model, despite the significant impact of these in 2006/07 when Ryanair significantly increased the number of aircraft it based at Dublin. IATA stated that we should have reported the goodness of fit of our regression model.
- 4.16 IATA presented its own five-year forecast "based on a survey done to the industry's major airlines, civil aviation and airport authorities". IATA "verified" this forecast by showing that it was more conservative than the forecast that would be produced by combining an elasticity of 2.0 with the weighted average GDP of countries served by Dublin Airport. IATA considered an elasticity of 1.15 to be too low, and cited a Eurocontrol report as evidence of its claim that long run elasticities to GDP lay in the range 1.5 – 2.5.
- 4.17 IATA also expressed concern that our passenger forecast was not substantially higher than DAA's, since IATA considered DAA to have an incentive to under-forecast.
- 4.18 Ryanair stated that our forecast was too conservative. The airline considered our regression equation to be wrongly specified in that it did not consider the sensitivity of demand to changes in price. Ryanair considered that price sensitivity had historically contributed to a period of faster growth when Ryanair was "driving down prices," and to a suppression of demand when the air travel tax was introduced.
- 4.19 Ryanair therefore considered that growth at Dublin Airport would be substantially above 1.15 times GDP and closer to 1.3. Ryanair stated UK Department for Transport forecasts reflected an elasticity of traffic volume to GDP of 1.3 and an elasticity of volume to fares of -0.6.
- 4.20 Ryanair produced an alternate forecast based on an elasticity of demand with respect to GDP of 1.3. In Ryanair's view this was a conservative forecast, because if it was used as a building block in the price cap, it would lead to a further reduction in fares and therefore even greater demand.

- 4.21 Ryanair also stated that the current infrastructure at Dublin Airport was capable of handling a significantly higher number of passengers.

Decision on Passenger Forecasts

- 4.22 In the Draft Determination, we created a passenger forecast that was based in part on a projection of passenger numbers in 2014 provided by DAA. We proposed to update that forecast for the Final Determination, in light of outturn passenger numbers which we knew would become available to us.
- 4.23 Our forecast in the Draft was similar to the forecast DAA presented in its regulatory proposition in April. Aer Lingus, Ryanair and IATA saw our forecasts as excessively pessimistic, and made arguments for revising the figures upwards. Events have lent some empirical support to the airlines' optimism: between the end of 2013 and the publication of this Determination, the rate of growth of passenger numbers has been greater than DAA or we predicted. It already seems likely that passenger numbers in 2014 will be at least as high as we previously expected them to be in 2015.
- 4.24 Over the period 1 January to 31 August 2014, passenger numbers were up 6.6% on the same period last year. We have therefore assumed – in line with the method we proposed in the Draft Determination – that passenger numbers in calendar year 2014 will be 6.6% higher than they were in 2013. Our assumptions on annual passenger growth from 2014 onwards are linked to IMF GDP projections. Since the IMF has not updated its projections for Ireland, our assumed growth rates from 2014 onwards have not changed.
- 4.25 DAA and the airlines both criticised the forecast and underlying approach we presented in the Draft Determination. The main topics of that criticism were:
- Our assumed relationship between passenger numbers and GDP
 - The possibility that our modelling work erroneously excluded important demand drivers, and
 - The choice of starting point for our forecast.

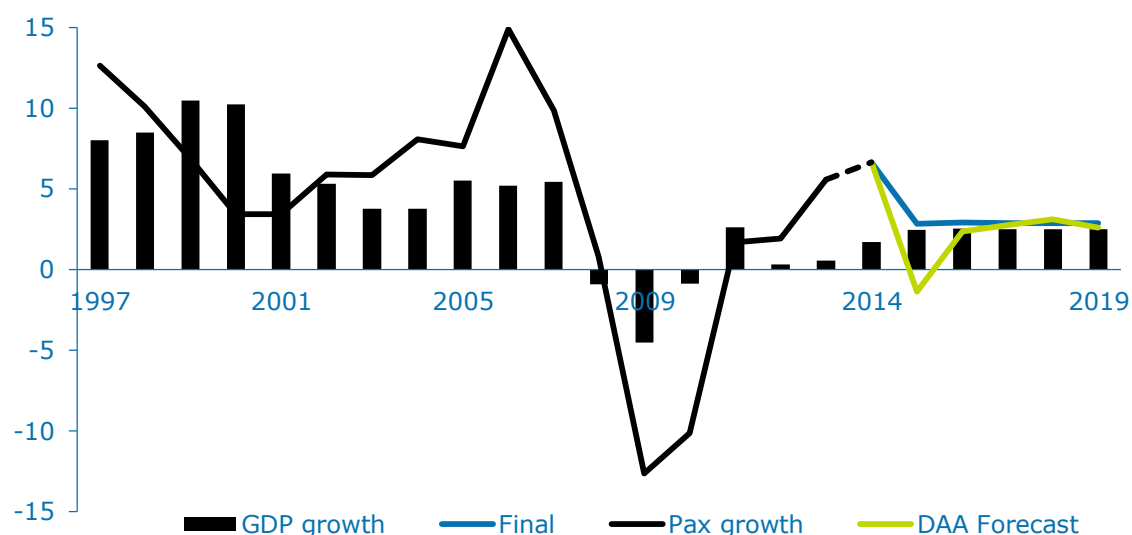
We address each of those points in the remainder of this section. Other criticisms we received from respondents relating to details of our modelling methodology are dealt with in Appendix 2. Our assessment of the substantive points raised by the respondents is that they could all be cited as justifying an upward revision to the passenger forecast, but after weighing up the sum of representations and available evidence we have decided to continue with the approach we indicated we would be taking in the Draft Determination.

- 4.26 Respondents to the Draft Determination presented us with a range of alternative forecasts. DAA provided the same forecast as it did in April 2014, having elected not to update its underlying model. This forecast predicts 23.9mppa by 2019. At the other extreme, IATA's forecast implied

25.8m passengers by 2019.⁴ Aer Lingus and Ryanair’s forecast were in between these two extremes.

- 4.27 DAA criticised our decision to base our forecast on our own model rather than theirs and asked us to reverse this decision. We have rejected this representation. The consultation process we set up for this Determination has allowed all parties a chance to comment on how we forecast passenger numbers. In addition, DAA has not updated its model to reflect important recent information on passenger numbers, which means it is difficult to rely on its forecast, especially in the near future when market intelligence and a route-by-route model might have most merit.
- 4.28 If we used DAA’s 2015-2019 forecast, the implication would be that we expect passenger numbers to contract in 2015, despite a growing economy. This is illustrated in Chart 4.2.

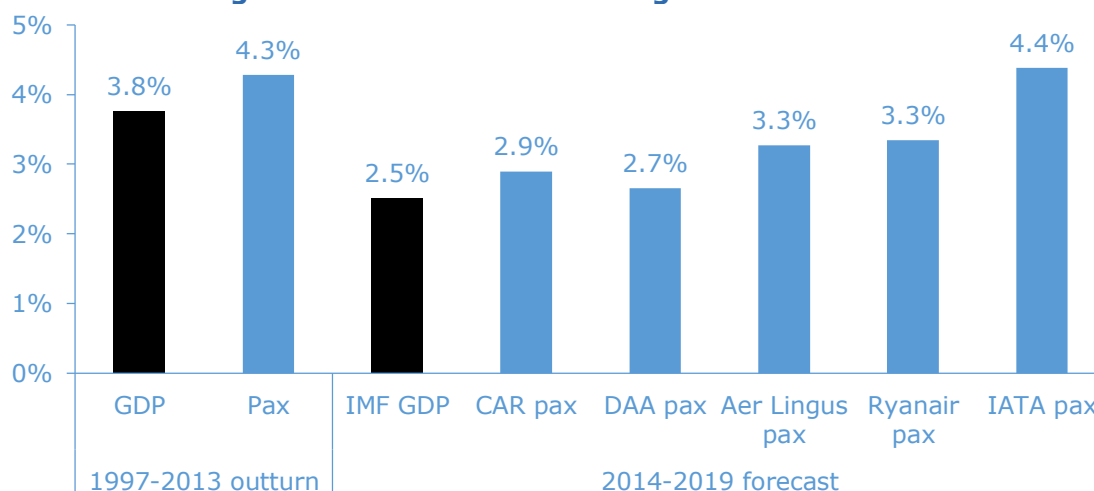
Chart 4.2: Annual Change in Irish DGP and Dublin Airport Passengers (%)



- 4.29 Respondents to the Draft Determination all used roughly the same assumption on passenger numbers in 2014 (IATA assumed 20.8m passengers; DAA, Aer Lingus and Ryanair assumed 20.7m). By contrast, rates of growth predicted by respondents over the period 2014-2019 differed significantly.
- 4.30 We computed the compound annual growth rates (CAGRs) associated with each respondents’ forecast from 2014 to 2019. Chart 4.3 shows how these growth rates compare with the growth rate we have used in this Determination, historic growth over the period 1997-2013, GDP growth over 1997-2013, and forecast GDP growth over 2014-2019.

⁴ IATA’s forecast only went as far as 2017. We have extended the forecast to 2019 by extending the 2013-2017 average annual growth rate onwards.

Chart 4.3: Changes in Irish GDP and Passenger Numbers



Sources: IMF, CAR analysis of respondents' forecasts.

- 4.31 The chart shows that GDP growth is forecast to be slower over the next five years than it has been on average since 1997, and most respondents have indicated that they also expect growth in passenger numbers to be slightly slower too.

Relationship Between Irish GDP and Passenger Numbers

- 4.32 Aer Lingus, IATA and Ryanair all argued that we had underestimated future growth in the Draft Determination. Each of these respondents regarded the elasticity of passenger numbers with respect to Irish GDP we had estimated (1.15) as too low.
- 4.33 Ryanair and Aer Lingus both cited UK Department for Transport demand forecasting guidelines stating that the average elasticity of demand to GDP in that country is 1.3. The UK Department for Transport estimates different elasticities for different market segments. Aer Lingus claimed that these lay in the range 1.2-1.7, although we note that the estimated elasticity of foreign business and leisure travel in the UK is in fact 1.0. We therefore see no reason to reject our estimate for the elasticity of demand at Dublin to Irish GDP; the UK's experience plausibly differs from our own, and in any case our overall elasticity falls within the range of values used for segments of the UK market.
- 4.34 IATA suggested that an elasticity of 2.0 would be reasonable, citing as evidence a Eurocontrol document that states that "traditionally in air traffic demand forecasting, an elasticity of 1.5-2.5 is expected".⁵ However we note that this same document describes the region of Europe which Ireland belongs to as having a particularly "mature" market for air travel compared to other regions, i.e. having an atypically low elasticity of demand to GDP. Therefore, we do not see any obvious inconsistency between our estimates and Eurocontrol's thinking.
- 4.35 None of the respondents objected to our use of GDP forecasts from the

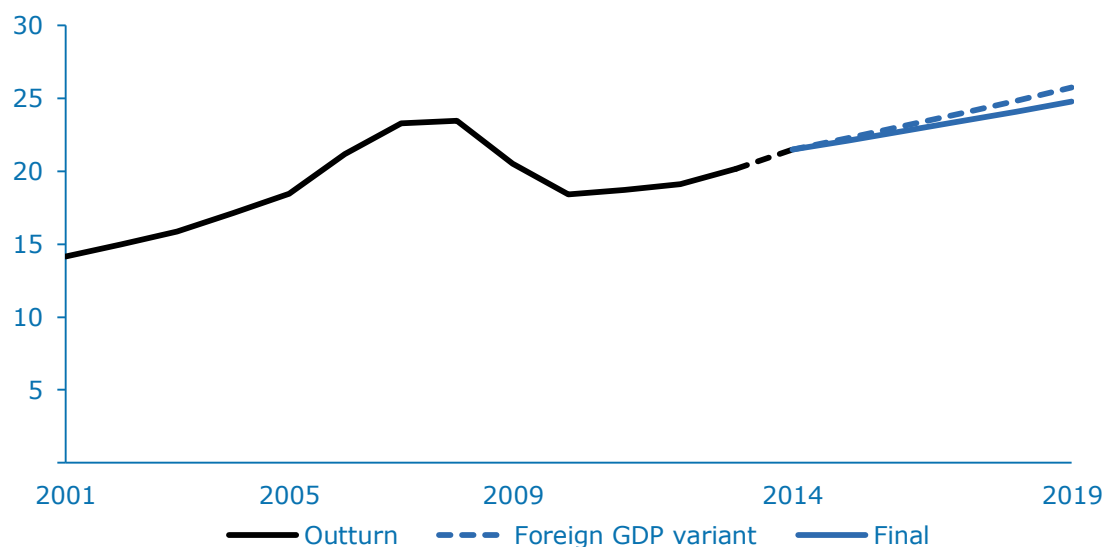
⁵ Eurocontrol, *Challenges of Growth 2013 Task 7: European Air Traffic in 2050*, www.eurocontrol.int, 2013

IMF rather than forecasts from another institution. The IMF has not updated its forecast for Ireland since March 2014. Although we are content to continue using this forecast, we note that the Central Bank adjusted its forecast of 2014 and 2015 GDP growth upwards in July.

Omitted Input Variables

- 4.36 Several respondents argued that in addition to Irish GDP, we should have used other variables as predictors of passenger numbers.
- 4.37 Ryanair argued that passenger demand at Dublin was price-sensitive and therefore our growth forecast should be dependent in part on the level of airport charges. Ryanair suggested that the effect of us reducing the price cap would be to boost passenger growth. Ryanair did not quantify this effect. Instead, they indicated that the passenger numbers they had forecast should be viewed as 'a minimum' because they excluded this uplift.
- 4.38 We investigated the merit of this claim by statistically analysing the historical relationship between airport charges and passenger numbers at Dublin Airport over the period 2001-2012. We found that the average level of airport charges had no substantive or statistically significant effect on passenger numbers. This finding is consistent with evidence from elsewhere that demand for a particular air travel product is less price elastic when there are fewer competing alternatives to it.⁶ We also note that if demand at Dublin Airport was really as price-sensitive as Ryanair suggests, there would be no need for us to regulate its prices.
- 4.39 IATA suggested that we should make use of GDP forecasts for countries served by routes from Dublin Airport. DAA's demand forecasting model does this: passenger demand is modelled on a disaggregate basis at the level of routes, with growth rates on individual routes depending in part on projected GDP growth in the origin and destination areas. DAA cited this feature of its model as one of the reasons why it believed its model was superior to ours.
- 4.40 In light of these representations, we extended the scope of our modelling work to consider the potential for using GDP growth in countries other than Ireland to determine our passenger forecast. We tried several potential ways of specifying the relationship between passenger numbers at Dublin Airport and GDP in relevant countries. The results of our models consistently implied higher passenger growth than we forecast when we used GDP from Ireland only. For example, Chart 4.4 shows the forecast implied by a model we fitted in which passenger numbers are related to a weighted index of North American, Eurozone, British and Irish GDP. The analysis underpinning this forecast is described in Appendix 2.

⁶ Intervistas, *Estimating Air Travel Demand Elasticities*, www.iata.org, 2008

Chart 4.4: Using Foreign GDP to Forecast Passenger Numbers

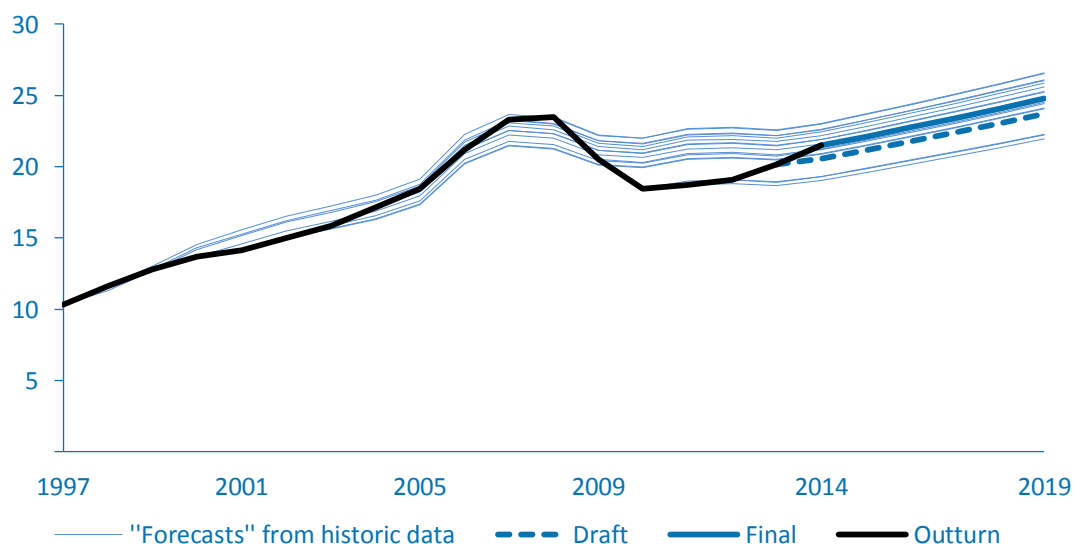
2014 Starting point

- 4.41 We noted that all respondents to the Draft Determination forecast similar passenger numbers in 2014: Aer Lingus and Ryanair followed our lead in adopting DAA's old projection from April of 20.7m passengers. IATA's forecast was for 20.8m.
- 4.42 More recent data suggests that the 2014 projection used in the Draft Determination is unduly pessimistic. From 1 January to 31 August 2014, passenger numbers were on average 6.6% higher than they were over the same set of months in 2013. If this rate of growth is maintained for the remaining four months of the year, by the end of 2014, 21.5m passengers will have used Dublin Airport.
- 4.43 We have consulted with the airport's slot coordinators, who now have good visibility of the level of demand for slots throughout the remainder of 2014 and into the first quarter of 2015. The available evidence suggests that the rate of growth we have seen so far this calendar year will in fact be maintained until year-end.
- 4.44 We indicated in the Draft Determination that we would be inclined to update our forecast to reflect more recent data for 2014. DAA objected to this. DAA argued that recent growth was "above trend" and therefore it would be inappropriate to move our 2014 starting point to take it into account, as our approach to forecasting meant that it would have a knock-on effect on total passenger numbers in 2015-2019.
- 4.45 In order to consider DAA's argument that recent growth was "above trend" and that its inflationary effect on our forecast should be abated, we have conducted additional analysis.
- 4.46 In particular, we have used the framework of our model to produce a range of passenger demand scenarios that begin at different points in history, illustrating the dependence of our model outputs on the choice of starting point. These scenarios use outturn passenger numbers in their starting year and then grow these at a rate of 1.15 times outturn GDP (or

IMF-projected GDP after 2014). These scenarios are plotted as the thin lines on Chart 4.5.

- 4.47 The chart also includes two alternative forecasts for the period 2014-2019, that vary only according to the passenger numbers assumed in 2014. One assumes 20.7m passengers in 2014, as in the Draft Determination; the other has an updated 2014 passenger forecast of 21.5m passengers. The chart does not appear to support DAA's claim that updating the forecast in this way would mean adopting a forecast above the long-term trend for passenger numbers. Instead, the chart seems to suggest that passenger numbers in 2010, 2011 and 2012 were unusually low. More recent outturns are returning passenger numbers at Dublin Airport back to the levels that might have been expected given the strength of the Irish economy. On this reading, our updated forecast is more in keeping with long-term trends.

Chart 4.5: Using Different Starting Points



Final Decision

- 4.48 Having analysed new information and considered the representations received, we believe that the available evidence suggests that the passenger forecast used in the Draft Determination was too low. The relationship we have assumed between Irish GDP and passenger growth is relatively conservative; models that include foreign countries' GDPs as demand drivers would suggest higher passenger numbers; commentators are now more optimistic about Ireland's economic prospects than they were previously; and passenger numbers in 2014 look likely to be higher than we assumed in the Draft Determination.
- 4.49 We indicated in the Draft Determination that we would update our forecast to reflect new information on passenger numbers at Dublin Airport in 2014. We have made that update. On the basis of growth so far in calendar year 2014, we assume that total passenger numbers at the end of the year will reach 21.5m.
- 4.50 This updating of the starting point increases our passenger forecast for

2015-2019. We have rejected DAA's argument that this adjustment would put our forecast above the long-term trend. Moreover, given that the available evidence all seems to point to a higher forecast, we believe it is appropriate that our forecast be revised up in this manner.

- 4.51 Finally, we considered DAA's argument that our allowances for opex and capex at the airport would create capacity issues for the airport, preventing it from servicing a significant proportion of forecast demand. DAA provided limited information on the process it followed in order to reach the conclusion that 0.8m of the passengers it forecast for 2019 could not in fact be accommodated under the terms of the Draft Determination. Since publishing that Draft, we have adjusted the building blocks to allow for a number of additional capital projects and more staff. Arguably, the only capacity-related project we have not now allowed is an overhaul of T1 security, which we see as unnecessary at this time. DAA can nevertheless unlock funds for the project if users agree on the need for it in a consultation. We also believe that there is ample scope to make greater use of spare capacity at off-peak times at Dublin Airport. Historically, when passenger numbers were higher than they are now, the daily profile of demand was much less concentrated in the peak. We have therefore rejected DAA's suggestion that our forecast passenger numbers are not possible given the allowances made in the other building blocks. It stretches credibility that an airport that served 23m passengers in 2007 (albeit at a lower quality of service) is incapable of serving 25m passengers a decade later having built a new terminal at significant cost in the intervening period.

5. Operating Expenditure

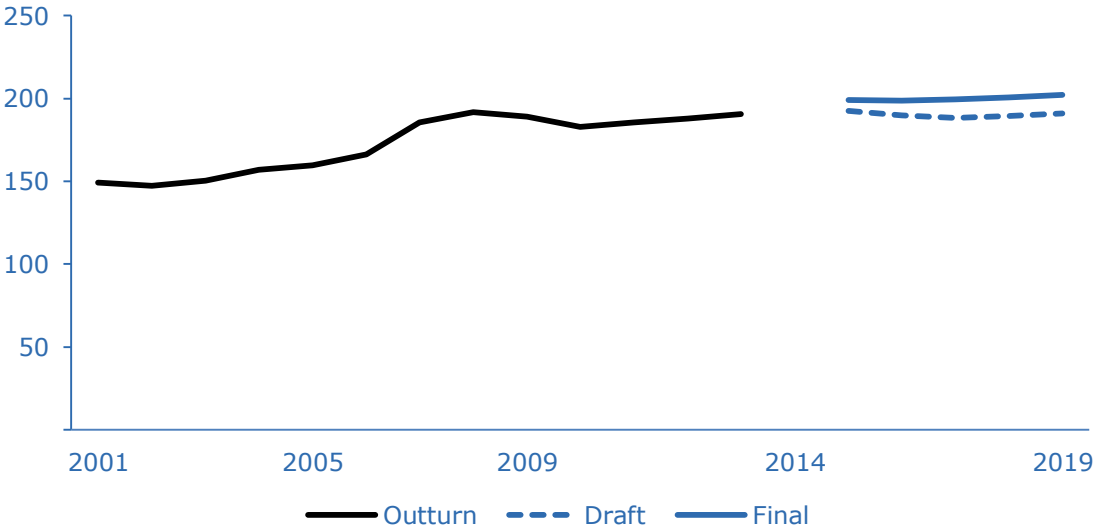
Table 5.1: Operating Expenditure Forecast

	2013	2014	2015	2016	2017	2018	2019
Total, €m	192.5	-	199.2	198.9	199.3	200.7	202.2
Per Passenger, €	9.55	-	9.01	8.74	8.52	8.34	8.16

Source: 2013 DAA Regulatory Accounts, 2015-2019 CAR forecasts.

- 5.1 We forecast that total operating costs will be €10m higher in 2019 compared to 2013. Opex per passenger will be €1.39 lower in 2019 compared to 2013. Scale effects account for €1.04 of this change, with the remaining €0.35 from efficiency gains.
- 5.2 In 2017 we are forecasting passenger numbers to be at a similar level to 2008 while at the same time forecasting opex per passenger to be about 5% higher. In 2008 Dublin Airport operated just one terminal.
- 5.3 Our opex allowance is about €12m p.a. higher than in the Draft for the following reasons:
 - We updated the 2013 outturns to reflect the audited regulatory accounts;
 - We corrected an error which adds 50 FTE security staff;
 - We removed proposed savings which had identified outsourcing as a means of achieving them;
 - We made an allowance for funding of the IASS pension deficit; and
 - We revised passenger forecasts (which applies upward pressure on the total opex while reducing the per passenger opex).

Chart 5.1: Operating Expenditure Forecasts (€m)



Representations Received on Operating Expenditure

- 5.4 DAA argued that the efficiencies we had allowed for in the operating expenditure building block were not achievable. DAA criticised our decisions and the report produced by SDG, which DAA claimed to contain errors and flawed assumptions. The major focal points of DAA’s argument were the baseline for costs in 2013, security staff costs, pension costs, and

the potential for cost savings through outsourcing. DAA also criticised other parts of the forecast.

- 5.5 DAA argued that SDG's work had failed to accurately reflect Dublin's baseline costs. DAA computed that there was a cost discrepancy of €2.7m in the base year of SDG's study, 2013. DAA then drew attention to an €8m difference between SDG's estimate of costs in 2014 and DAA's budget for that year. DAA outlined what it considered to be the main causes of the difference. One of these was the number of FTE security staff added in 2014. Another source of difference was that DAA had forecast higher growth in security costs and higher energy price inflation from 2013 to 2014. Another source of difference was that DAA had adjusted for a number of non-standard accrual releases that affected 2013 costs. DAA had also included in 2014 the costs of a planned new pension scheme for all DAA staff.
- 5.6 Regarding pensions, DAA objected to us excluding DAA's proposed payment to settle issues with the IASS scheme. DAA also argued that an allowance should also be made for a greater level of contributions to a new defined contributions scheme in future. These increased payments would be necessitated in part by an increase in the number of staff covered by such a scheme, and also in part due to increasing the rate of contributions per employee from 6.4% to 9%.
- 5.7 DAA considered these proposals to be consistent with the recommendations of the Irish Labour Court, and claimed that the proposals we had set out in the Draft Determination would be inconsistent with the approaches taken by other Irish and UK regulators both to funding pension deficits and to allowing for ongoing pension costs.
- 5.8 DAA rejected SDG's assessment of the potential for reductions in staff costs and the suggestion that the savings in SDG's high ambition scenario could be achieved through outsourcing certain staff functions.
- 5.9 DAA stated that the possibility of outsourcing had "not been properly analysed by SDG (nor by CAR) from a legal perspective, e.g. with regard to the application of TUPE". In addition, DAA suggested that the costs of industrial action precipitated by a decision to outsource could "completely dwarf the ostensible savings". Finally, DAA contended that even leaving aside industrial action, outsourcing staff functions would not lead to the cost savings suggested and could even result in cost increases.
- 5.10 DAA made a number of criticisms of SDG's analysis of security cost requirements. DAA considered that SDG had failed to apprehend the full impact of the European Commission audit, which had resulted in DAA's decision to add 100 FTEs to security (SDG had allowed 50 based on the average addition in 2013). DAA also disputed the roster efficiency savings that SDG had identified. Finally, DAA drew attention to the as yet uncertain impact of future regulatory requirements on throughput. DAA characterised SDG's statement that new technology should enable existing throughput to be maintained as "highly presumptuous". DAA also considered there to be a disconnect between the opex and capex building blocks since we had disallowed capital spend on the security technology SDG had referred to.

- 5.11 DAA drew attention to what it saw as further problems with reconciling our allowances for capex and opex. DAA stated that we had erroneously failed to include about €5m of labour costs associated with the development of DAA's assets in either the opex or capex building blocks. DAA also argued that we had erroneously forecast incremental revenues from the T2 Multi Story Car Park (MSCP) and TSA Extension without forecasting incremental operating costs, and argued that if we were to disallow the T1 Check-in and Security project it would have to make a greater allowance for operating costs to reflect an increasing inefficiency of managing throughput in that area.
- 5.12 DAA criticised SDG's suggestion that the number of staff employed in Central Functions at Dublin Airport was high compared to Gatwick. DAA considered that this comparison did not take into account the comparability of the activities fulfilled by Central Functions staff at the two airports.
- 5.13 On airside staff costs, DAA argued that SDG had not taken sufficient account of an inevitable airside/landside cost difference among facilities and cleaning staff.
- 5.14 DAA contended that SDG had not justified its suggestion that maintenance staff cost efficiencies of 2% per annum were achievable.
- 5.15 DAA criticised SDG's choice of index for energy price inflation.
- 5.16 DAA disagreed with SDG's proposal for reducing annual marketing spend. DAA considered that SDG had underestimated the competition it faced with other airports, retailers and car park operators.
- 5.17 DAA stated that SDG's proposed IT opex savings of €1.9m (in 2013 prices) per annum by 2019 were unjustified. DAA criticised the calculation of IT costs as a percentage of turnover, stating that commercial revenues from IT should be netted off against gross costs, and that a greater proportion of DAA's IT costs should be allocated to Cork and Shannon. DAA stated that its IT totex (capex plus opex) would be in line with the SITA benchmark suggested by us if more recent SITA data were used.
- 5.18 DAA stated we should allow the cost of the voluntary severance scheme which resulted in opex savings in the period 2010-2014.
- 5.19 ACI argued that we had effectively increased the minimum level of service required of security by redefining the measure of queuing time, without identifying a source of efficiency to cope with this change, since the potential efficiencies for security found in SDG's report had already been reserved for cost savings. ACI also argued that we had not considered the operating cost implications of raising its target scores for DAA in the ACI Airport Service Quality survey.
- 5.20 More generally, ACI contended that we had made decisions concerning required service levels, operating expenditure, capital expenditure and commercial revenues without fully considering the interdependencies between these areas.
- 5.21 ACI also commented on the limits labour law might place around DAA's

ability to realise the operating cost efficiencies identified by SDG.

- 5.22 Aer Lingus contended that because we were forecasting that passenger numbers in 2019 would be approximately the same as in 2008, and that operating costs would also be at the same level, we had set out no evidence or expectation of efficiency savings over the period 2008-2019.
- 5.23 Aer Lingus considered that we should have settled on a higher efficiency target by placing greater focus on external benchmarks rather than the obstacles to achieving greater cost efficiency. Aer Lingus wanted us to set a long-run target for Dublin Airport's operating expenditure and a time frame for achieving that target.
- 5.24 Aer Lingus also made more specific comments about the translation of SDG's analysis into targets - with particular focus on staff costs. Aer Lingus drew attention to Dublin's relatively high ratio of staff to passengers and questioned whether the airport was being challenged sufficiently on this front. Aer Lingus considered that the possibility of achieving significant savings by addressing legacy staff costs had been put in the "too hard" category and excluded from the forecast. Aer Lingus drew a comparison between DAA's challenge with controlling staff costs and its own, stating that it had previously risen to this challenge. Finally, the airline drew attention to parts of SDG's analysis that forecast real increases in wages. Aer Lingus believed the usual regulatory practice was to assume these rises would be offset by efficiency savings found elsewhere.
- 5.25 Aer Lingus also commented on outturn operating expenditure over 2009-2014, which was significantly below our forecast. Aer Lingus argued that this meant DAA had "wrongly obtained" €130m or more. Aer Lingus claimed that DAA would have known it did not need these additional funds before the last regulatory period began. Aer Lingus suggested that we should consider reducing the RAB by some or all of this amount in order to withdraw the benefit of this over-forecast and encourage DAA to make more accurate cost projections in future.
- 5.26 The trade unions at Dublin Airport considered that the levels of operating expenditure suggested by DAA in its regulatory proposition were more than acceptable and in line with benchmarks from other airports.
- 5.27 The trade unions stated that most of the proposed opex savings would be realised through reduced staff costs, in particular costs associated with 600 staff employed directly by DAA. The unions considered that any changes to terms and conditions of staff, such as the changes that might result from outsourcing, "should not involve the intervention of the Commission". The trade unions considered that by setting a price cap with reference to SDG's high ambition scenario we were "obliquely" making such an intervention. The unions stated that any proposal to outsource 600 jobs would result in industrial unrest.
- 5.28 The unions also argued that the operating cost forecast in the Draft Determination did not give due consideration to the abnormality of economic conditions in Ireland over the last five years. The unions argued that some recent pay reductions would necessarily be unwound as the

economy improved but that the forecast had erroneously excluded the possibility of "post-recession conditions, prices and pay rates". Forecasting on the basis of current conditions was described as "punitive".

- 5.29 The trade unions also considered it inappropriate for us to exclude DAA's proposed payment to address a deficit in the IASS pension scheme. The unions considered that we could not disallow this cost given that the 2001 Aviation Regulation Act requires due regard to "costs or liabilities for which Dublin Airport Authority is responsible".
- 5.30 The Enterprise Agencies acknowledged the importance of striving for efficiencies but considered our benchmarking exercise to indicate Dublin compared favourably with other airports on operating costs per passenger.
- 5.31 Etihad Airways underlined the importance of airport security and search being "adequately resourced" to keep queuing time below 30 minutes.
- 5.32 The IAA drew attention to the fact that shortcomings with Dublin Airport's security had been identified by European Commission inspectors monitoring the airport for compliance with regulation 300/2008. The IAA stated these shortcomings had "driven a requirement to increase the human and technological resources" of the airport. The IAA stated that it was not appropriate for us to forecast on the basis of 500 FTE security staff given that current staff levels (550) were partly a result of the inspection, and given the IAA's assumption that new restrictions on Liquids, Aerosols and Gels and new standards for Hold Baggage Screening would (absent further investment) increase security screening times.
- 5.33 IALPA, who saw the current airfield infrastructure as contributing to a number of operational inefficiencies, were concerned that SDG and the Draft Determination had not sufficiently addressed airfield operations when forecasting operating costs.
- 5.34 IATA supported the approach adopted to forecasting operating costs, describing it as "balanced" and "broadly transparent". By contrast DAA's projected costs for 2014 were described as an "illegitimate attempt to set a higher baseline for the next regulatory period." IATA were critical of SDG's assumed real wage increases for IT workers, arguing that high unemployment across Europe and high labour mobility will provide adequate downward pressure on these wages. IATA also asked for clarification as to whether, after analysing operating cost developments at several Irish Semi-State Companies since 2007, the approach had been influenced by the rapidly increasing cost trajectory of Bord Gáis, which they saw as an outlier.
- 5.35 IBEC commented that any opex efficiency drive should not be allowed to affect quality of service. IBEC contended that our proposals presented "significant challenges to maintaining processing capability". IBEC wanted the opex decision to minimise the risk of industrial action.
- 5.36 The Irish Congress of Trade Unions stated that a significant proportion of the reduction in the price cap was attributable to "the proposed outsourcing of a wide range of services" and warned that if DAA was "forced as a result of the CAR's direction (either explicit or implicit)" to

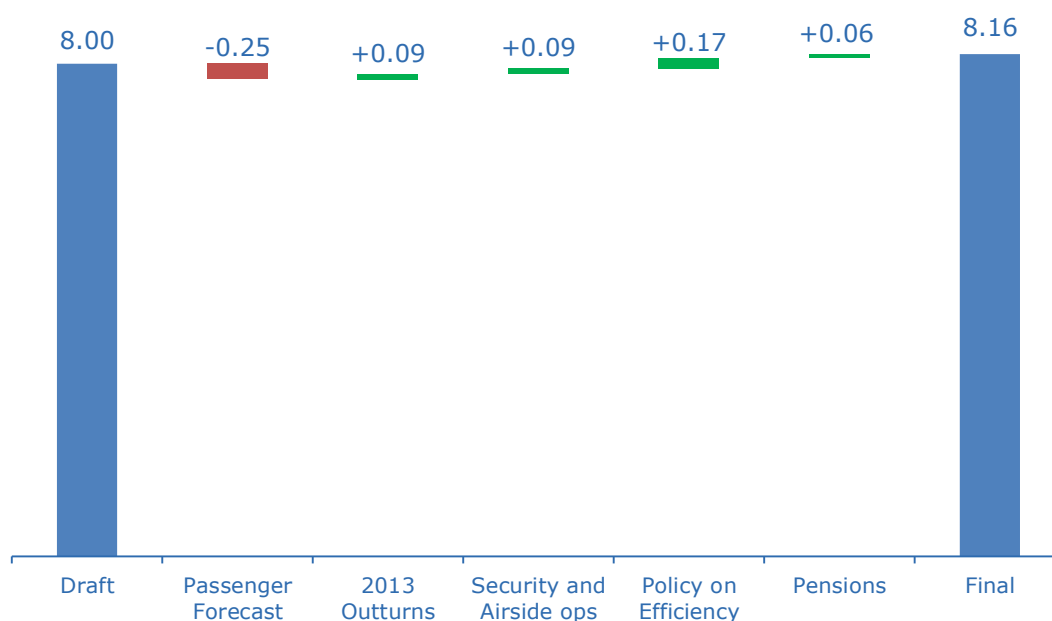
- outsource these services, industrial conflict would be inevitable.
- 5.37 The Irish Exporters Association was concerned that reducing the number of staff at Dublin Airport may result in longer delays at security.
- 5.38 The Irish Tourist Industry Confederation stated that we needed to provide "compelling evidence" that the proposed level of opex for security would allow the existing level of service to be maintained and enhanced.
- 5.39 ITOA argued that several of our proposals could lead to industrial action at the airport, damaging the country's reputation amongst tourists. ITOA considered that visitors' impressions of Ireland would be worsened as a result of the disallowance of expenditure affecting the customer's experience, particularly with security.
- 5.40 Lufthansa Swiss supported the level of the price cap, but suggested that more capital projects should be funded by making further opex reductions.
- 5.41 Maldron Hotel Dublin Airport expressed concern that the provisions of the Draft Determination might inhibit improvements in quality of service or lead to disruptive industrial action, diminishing the hotel's customer base.
- 5.42 Norwegian Air expressed concern that future screening requirements were likely to be more demanding of airports, and were supportive of investing to maintain rapid passenger throughput in security.
- 5.43 Ryanair considered the operating cost forecast to be insufficiently ambitious. Highlighting that the main distinction between SDG's "high" and "low ambition" forecasts was the degree of outsourcing assumed, Ryanair contended that the "high ambition" scenario constituted the minimum level of savings that should be assumed in the Final Determination. In Ryanair's view the decision to place our forecast at the midpoint of the high and low ambition scenarios failed to recognise potential for further savings achievable even without outsourcing.
- 5.44 Ryanair cited benchmarks to support its argument that DAA's staff costs were too high. Ryanair highlighted that some airports have a much higher ratio of passengers to staff than Dublin. Ryanair calculated that the average yearly salary at Dublin was €49,500 in 2012, and compared this with the average Irish salary computed by the Central Statistics Office, €41,661. Ryanair stated that all employees' salaries should be indexed to CPI-3% to bring their average into line with the national average. The airline rejected SDG's suggestion that "higher skilled salaries" would increase at CPI+1.6%.
- 5.45 Ryanair argued that significant savings could be made on security staff, even without outsourcing the function. The airline stated that Manchester Airport achieved savings equivalent to SDG's high ambition scenario in the late 1990s through revising existing staff terms and conditions. Ryanair also considered that the current roster arrangements were highly inefficient. Ryanair argued that the airport currently built in an "extraordinarily high" uplift on the staff roster to allow for leave and sickness absence.
- 5.46 Ryanair suggested cleaning and facilities staff costs could be reduced

below the level forecast by SDG by making a drive for further flexibility of staff in T1, outsourcing more cleaning functions, and finding further efficiencies by making all cleaning the responsibility of a single provider.

- 5.47 Ryanair considered that staff numbers for campus services were excessive, and that Stansted had demonstrated that further reductions were possible.
- 5.48 Ryanair contended that there was "no reason" why retail staff numbers should increase over the upcoming regulatory period. They had decreased over the last regulatory period, despite the opening of T2.
- 5.49 Ryanair claimed we did not ask SDG to investigate DAA's pension scheme costs as part of its review of operating costs, which it characterised as a "cover up".
- 5.50 Turkish Airlines stated that in order to avoid creating delays for airlines, enough security staff must be provided to screen passengers in 30 minutes.

Decision on Operating Expenditure

Chart 5.2: Tracking 2019 Opex per PAX from Draft to Final



- 5.51 We continue to derive our forecast from an efficiency assessment of operating costs at Dublin Airport that SDG conducted for us. Based on representations received SDG has updated its report. We are satisfied that SDG has addressed all questions raised. In addition we are satisfied that SDG took a holistic approach to the airport when making its assessment. Annexed to this report are the updated SDG report and a separate document which responds to comments received.
- 5.52 Chart 5.2 tracks the changes to opex per passenger since the Draft Determination. Opex per passenger in 2019 is €0.16 higher than in the Draft Determination.

- 5.53 Since the Draft Determination we have increased our passenger numbers forecast, this change alone results in total opex increasing by about €1m by 2019. Scale effect mean that the change in passenger numbers reduces opex per passenger by €0.25 (the fixed elements of opex are spread across a higher number of passengers than in the Draft Determination).
- 5.54 In responding to representations the following changes were made to the SDG forecasts for the following reasons:
- In its response to the Draft Determination DAA claimed 2013 opex was €192.2m and not the €189.5m used by SDG. The regulated accounts for 2013 show opex at €191.6m, DAA have since confirmed to us that €191.6m is the correct opex number for 2013. SDG have updated its base year to reflect this, resulting in an increase of about €2m per year
 - Based on representations received SDG have increased the number of security staff by 50 FTEs. This increased total opex by about €2m per year
 - Based on representations received SDG have removed a potential saving in Airside Operations of about €0.6m.
- 5.55 In addition we have changed the way we use the SDG forecasts. SDG provided three opex scenarios. The no savings scenario projects the base year forward with estimated passenger elasticities but no efficiency savings, the low ambition scenario identifies savings that should be achievable without having to overcome significant obstacles. In the high-ambition scenario, SDG acknowledges that DAA would have to overcome significant obstacles to realise the savings. In the Draft Determination we choose the midpoint between the low-ambition and high-ambition scenarios. For our Final Determination, we have only retained this approach for cost categories where the suggested means for realising the high-ambition cost saving did not involve outsourcing of staff. For cost areas where the high-ambition scenario suggested outsourcing of staff – for security staff, cleaning, car parks and retail – we have adopted the low-ambition scenario instead. This change addresses those representations from parties which were against outsourcing. It increases total opex by about €4m per year.
- 5.56 A number of respondents commented on the allowance for security screening. We sought clarification from IAA on requirements for security compliance, in terms of both opex and capex. IAA's response is published as an annex. We are satisfied that adjustments made by SDG to security staff numbers, combined with capital allowances we have made in Section 7, are sufficient to allow compliance with security requirements.
- 5.57 Table 5.2 shows the total opex allowance by category for 2019. It also shows what we proposed allowing in the Draft Determination.

Table 5.2: Total Annual Operating Costs by 2019 by Category

€m	Draft	Final
Security staff	20.8	25.1
Central Function staff	18.9	19.6
Other staff costs*	5.6	4.8
Campus Services staff	14.9	14.9
Airside Operations staff	4.1	4.4
IT & technology	13.5	13.5
Facilities & cleaning	21.6	22.7
Car Parks	5.2	5.4
Retail	11.9	13.7
Maintenance	23.3	23.4
Capital Projects	1.6	1.8
Utilities	7.8	7.8
Rent & Rates	13.8	13.8
Marketing and related costs	6.0	6.3
Consultancy services*	5.9	5.5
Insurance	2.9	2.9
Other	6.4	7.9
Passengers with Reduced Mobility	6.9	7.0
Pension Deficit Contribution	0	1.6
Total	190.9	202.2

Source: SDG study, CAR forecasts. * costs fell as result of updated 2013 outturns.

Staff Remuneration

- 5.58 The unions argued that we should make allowances for future pay increases. In contrast, Ryanair argued for pay decreases of CPI-3%. We have rejected both of these representations, and continued to assume most categories of staff costs increase in line with inflation, with above inflation increases for certain categories detailed in the SDG report where labour market conditions appear to be tight. SDG's report shows that for many categories of staff costs, DAA's costs already appear to be relatively high. For this reason, we do not think there is a case for assuming above inflation pay rises. Existing contractual commitments may restrict DAA's ability to achieve nominal pay cuts, which a cut to staff costs of CPI-3% would likely require.
- 5.59 DAA requested extra opex to fund additional pension contributions for future defined contribution schemes. We are of the opinion that the value of compensation packages to workers should be considered in their entirety. If DAA are increasing pension contributions then it should receive concessions in other aspects of the compensation package or productivity. We have therefore made no additional allowance for increased pension contributions. In addition, SDG have shown that the total remuneration packages at the airport more than adequate. Ryanair claimed SDG were

instructed not to investigate pension costs. SDG were instructed not to investigate the issues surrounding the IASS deficit, but it was part of SDG's remit to examine efficient future remuneration costs (which might be expected to include pension costs).

- 5.60 DAA has argued that the full cost of dealing with the Irish Airlines Superannuation Scheme (IASS) deficit should be borne by users. The IASS scheme is a multi-employer scheme and DAA is a minority employer in the scheme. Adjustments to contribution levels require agreement of all members of the scheme. Issues with the scheme have been known as far back as the 2005 Airport Charges Determination but no solution was reached. The level of contribution has remained fixed at 6.375%. No benefits were accrued to DAA when the scheme was in surplus, similarly no increases in contribution have been made to deal with the current funding shortfall.
- 5.61 Since the Draft Determination the Government appointed Expert Panel published its report on resolving the Irish Airlines Superannuation Scheme (IASS) dispute. The Expert Panel outlined a number of measures which would resolve the issue as related to active members. The cost to DAA of the proposals for active members is €63m. In addition, on July 27 the State Airports (Shannon Group) Act 2014 came into force. This provides a legal framework to allow DAA to transfer employees out of the IASS scheme. The solution endorsed by the Expert Panel allows for lump-sum payments, in compensations for accrued service, into defined contribution schemes.
- 5.62 In addition to the €63m for active members, DAA has put forward an offer of €15m for deferred members of the scheme. This €15m has been calculated using the same principles the Expert Panel applied to the active members. This results in a total potential payment by DAA of €78m. Some of this €78m is for members associated with Cork and Shannon airports, with €55m for Dublin Airport members.
- 5.63 DAA claimed the approach outlined in our Draft Determination is inconsistent with the approach of other regulators in the UK and Ireland. In general three approaches have been taken by regulators to pension deficits and surpluses in defined benefit schemes:
- users meet the service cost of pensions but risks associated with the management of the scheme is a matter for the company and therefore borne by the shareholders. Deficits are paid for by shareholders and similarly shareholders gain from surpluses. This principle is used by Ofcom
 - Users meet total pension costs; service costs and deficit repair costs. When a scheme is in surplus users can gain from pension holidays. This general approach is used by the Commission for Energy Regulation (CER), the UK Civil Aviation Authority (CAA) and was used by the Competition Commission in its Bristol Water Determination.
 - a hybrid between the two other options, passing the cost of historical deficits on to the user while indicating to the firm that future deficits will not be funded by users. This principle has been used by Ofgem and in the Competition Commission's more recent Northern Ireland Electricity Determination.

- 5.64 In the Draft Determination we used the first approach where all gains and losses are borne by the shareholders. However, the IASS scheme is unusual in that DAA could not unilaterally increase or decrease contribution levels. All companies in the scheme had to agree to changes and no such agreement has been reached to date.
- 5.65 Consequently, we have chosen to revise our approach and adopt the "hybrid approach". Thus, we will make an allowance for DAA to address past liabilities, but view this allowance as closing off all recourse to users for funding this or any other DAA related pension deficit which may arise in the future. To protect the interests of prospective users, henceforth we expect DAA employees or shareholders to bear the risks of future pension deficits and surpluses. The proposed move to a defined contribution schemes will realise this goal.
- 5.66 The allowance we have made is consistent with the proposals of the Expert Panel (and related proposals for deferred members). The Panel's recommendations represent a solution to a long-standing problem facing the airport, which we believe is in the long-term interests users at the airport.
- 5.67 Our allowance also had regard to past funds DAA was allowed to recover from users between 2006 and 2009 specifically to address the problems of the funding deficit in the IASS pension scheme. In the 2005 Determination the price cap included a €0.42 per passenger uplift to deal with the problem. Because of the nature of the scheme, DAA was unable to use these funds to repair the IASS. Based on passenger outturns, and applying an imputed rate of return this uplift would have accumulated €47m. To fund the remaining €8m we have allowed an uplift to opex of €1.6m per year. In total this provides the €55m required to fund the proposals of the Expert Panel and the deferred members proposal in relation to staff at Dublin Airport.

Restructuring Costs

- 5.68 DAA state we should allow €60m in restructuring costs incurred in 2010-14. In the 2009 Determination we stated "The Commission has decided not to allow any upfront costs to achieve the opex targets it has set... If the Commission were to make a one-off allowance to help the DAA achieve the target level of FTEs, it would be inclined also to make an adjustment to the assumed level of per-FTE costs to be more in line with Booz's estimates for T2." In addition, DAA achieved opex savings in excess of our forecast and in doing so gained in the region of €140m in the 2010-2014 period. We have therefore made no uplift to opex based on this representation.

Capitalised Pay

- 5.69 DAA argued that we have not taken account of opex relating to capital projects, stating that the 2014 CIP costings do not include capitalisation of opex whereas the 2009 CIP did. Therefore it wanted an additional allowance of €5m per year. The SDG model has allowed opex for capital projects amounting to €1.5m per year. In its assessment of DAA's CIP EY stated that "fees are included within each project which are sufficient to

account for all associated personnel costs” whether these roles are insourced by DAA or outsourced as part of the tender. In addition to those fees, we have also made a capex allowance of €4m for project management. Finally, we have compared the levels of management and design fees in the 2009 CIP to the 2014 CIP (on projects where this information is available), finding that the percentage for fees is broadly similar in both CIPs (6.9% and 7.1% respectively). We have therefore made no additional uplift based on this representation.

Quality of Service

5.70 In relation to comments on quality of service, SDG’s efficiency study was conducted on the basis of retaining the quality of service level attained in 2013. Our revisions to quality of service targets in Section 9 do not require DAA to outperform the 2013 levels. Our survey based quality of service targets are below the level achieved in 2013. We have changed the definition of the queue for security but this change was suggested by DAA in the 2014 capex consultations and while it more accurately represents the queuing experience of the passenger, it retains the 30 minute target of the 2009 Determination.

Top Down Benchmarking

5.71 Overall our 2019 opex per passenger level of €8.16 compares well in the top-down airport benchmarking exercise we undertook for the Draft Determination. It is below the average opex of airports served by Ryanair of €8.87. To realise this outcome, we estimate DAA will have to realise efficiency savings of about 0.8% per year, after controlling for scale effects.

Operating Expenditure Rolling Schemes

5.72 As indicated in the Draft Determination the 2010-2014 opex rolling scheme will have no effect on the 2015-2019 price cap. Full details are in the financial model.

5.73 For 2015-2019 we retain the opex scheme proposed in the Draft Determination. The rolling scheme provides DAA with strong incentives to always realise potential savings regardless of where in the regulatory cycle it is – it always keeps the gain for 5 years. Without a rolling scheme, operating cost savings identified towards the end of the regulatory period may be deferred until the start of the next regulatory period in order to maximize the benefit to DAA.

5.74 We have updated the targets to reflect the new opex forecasts. The scheme increases incentives for DAA to achieve efficiencies. It is designed to reward true efficiencies so does not include categories of opex which depend on passenger numbers. Table 5.3 sets out the targets.

5.75 The focus is on total operating costs and not per passenger costs. DAA’s total costs for these cost categories need to be lower than the target.

5.76 The effect of this rolling scheme will be realised at the time of the next Determination. We envisage following the same approach as used when incorporating the effects of the 2010-2014 rolling scheme into this Draft

Determination. An operating costs forecast will be made, and then revised down should DAA have outperformed the rolling-scheme target. We will look at how DAA has fared relative to the overall target. To prevent gaming of the system, operating cost savings must be sustained. Those achieved in 2016 must be maintained in 2017 and 2018 to be carried forward; those achieved in 2017 must be maintained in 2018. The financial model includes a worksheet showing how we expect these calculations to work.

Table 5.3: Rolling Scheme for Operating Costs (€m)

Category	2016	2017	2018
Central Function Staff	19.4	19.3	19.5
Other Staff Costs	4.9	4.8	4.8
Campus Services Staff	14.6	14.7	14.8
Airside Operations Staff	4.3	4.3	4.3
IT & Technology	13.9	13.8	13.6
Facilities and Cleaning	22.5	22.5	22.6
Car Parks	5.4	5.4	5.4
Maintenance	23.4	23.4	23.4
Capital Projects	1.7	1.7	1.7
Utilities	7.7	7.8	7.8
Rent & Rates	13.8	13.8	13.8
Consultancy	5.5	5.5	5.5
Insurance	2.9	2.9	2.9
Target	140.1	140.0	140.3

6. Commercial Revenues

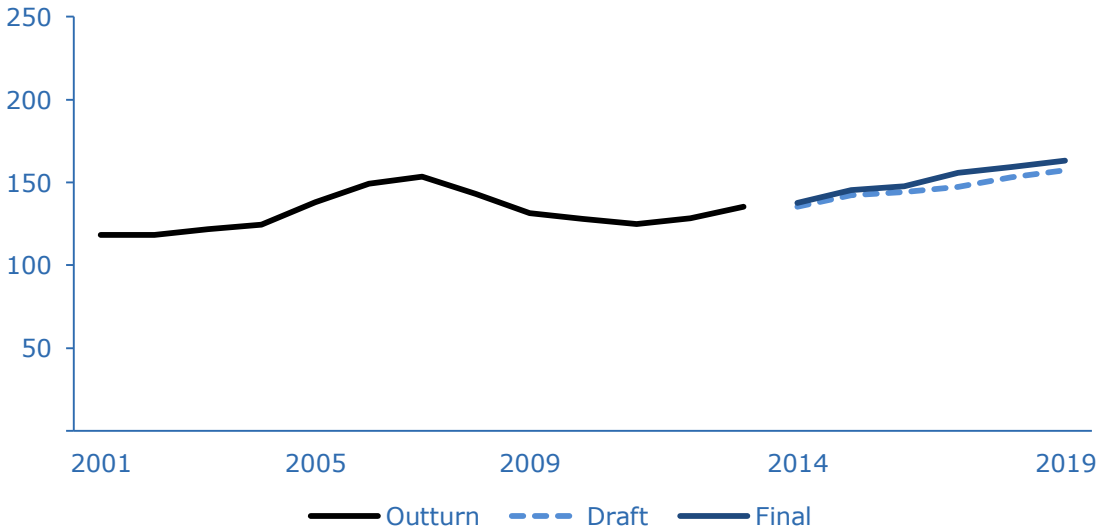
Table 6.1: Commercial Revenue Forecast

	2013	2014	2015	2016	2017	2018	2019
Total, €m	135.5	-	145.3	147.6	155.8	159.4	163.2
Per Passenger, €	6.72	-	6.58	6.49	6.66	6.62	6.59

Source: 2013 DAA Regulatory Accounts, 2015-2019 CAR forecasts.

- 6.1 We forecast that commercial revenues will be €28m higher in 2019 compared to 2013. Increasing passengers put downward pressure on the per passenger revenue, while new revenue generating capital projects help stabilise per passenger revenue at €6.59 by 2019.
- 6.2 We have retained the forecasting approach used in the Draft Determination, however our forecasts differ for the following reasons:
- We have received final audited revenue numbers from DAA for 2013;
 - We have revised the expected uplifts from capex projects in line with business case models provided by DAA;
 - We have adjusted our passenger-revenue elasticities;
 - Our revised passenger forecast (which has increased the total revenue while decreasing the per passenger revenue).

Chart 6.1: Commercial Revenue Forecast (€m)



Representations Received

- 6.3 Four parties who responded to the Draft Determination made reference to our commercial revenues forecasts.
- 6.4 DAA stated it would prefer if we used a bottom up study of commercial revenues rather than the top down approach used. It cites regulatory practice in the UK as a supporting reason for a change in approach.
- 6.5 DAA highlighted an error in our treatment of cost of goods sold. It also had a number of comments on our econometrics. It thought that our forecast

should assume estimated trends continue into the future.

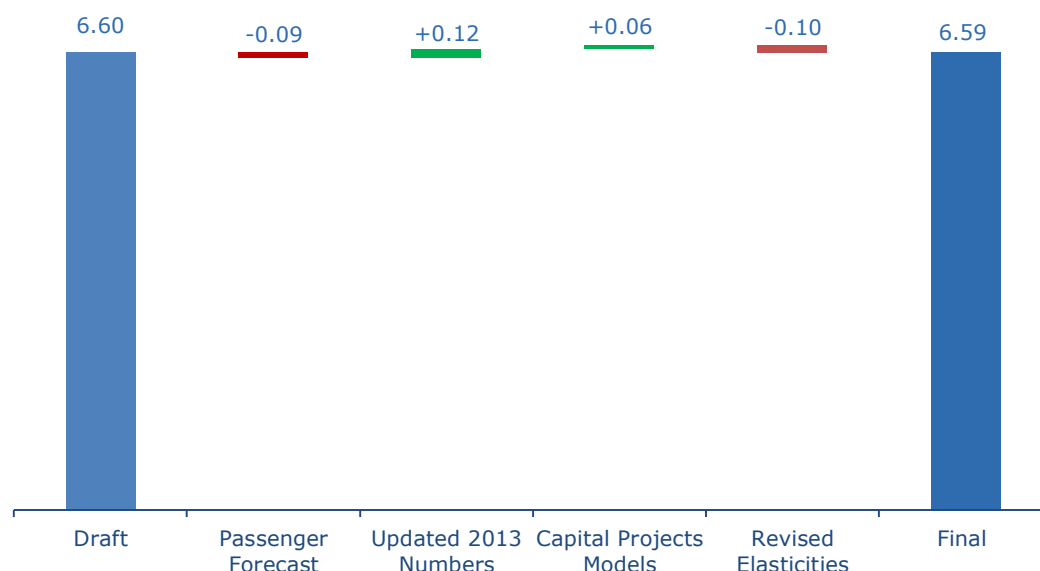
- 6.6 DAA claimed that our uplifts for revenue generating capital projects overstate their potential. Separately DAA believed we should reduce our forecast for disruption during retail refurbishments and the growing proportion of transfer passengers.
- 6.7 DAA stated that due to our treatment of hangar capex in the 2009 Determination, rents generated from hangars should now be outside the till.
- 6.8 DAA argued our treatment of ATI fees goes against the “proportionality principle of good regulation.” Should we retain this approach, it requested that the expected ATI fees be increased due to the planned introduction of charges for common use terminal equipment (CUTE) and common use self-service (CUSS) services.
- 6.9 DAA supported rolling schemes but would like to see them expanded to all areas of commercial revenue. DAA proposed a *per passenger* scheme for retail, car parking and advertising and a *gross revenue* scheme for property rents and property concessions.
- 6.10 Aer Lingus supported our forecasting approach and believed that benchmarking Dublin Airport on commercial revenue shows the forecasts to be “sensible.” It also supported our uplifts for capital projects and in its response to our issues paper it supported the introduction of a rolling scheme for commercial revenues.
- 6.11 IATA supported our forecasting approach but did not support the introduction of rolling schemes for commercial revenue.
- 6.12 Ryanair did not explicitly disagree with the approach taken, but it claims the forecasts are “illogical and wholly unambitious.” It stated that the elasticity for retail should be 1.05; it offered no reasoning for this number.
- 6.13 In relation to revenue generating capital projects Ryanair suggested a penalty be added should a project not reach the level of revenue forecast by DAA. Ryanair also claimed retail and property refurbishments are not required.
- 6.14 Ryanair supported our continuation of adjustments for over or under collection of ATI fees, describing this process as an “important safeguard.”
- 6.15 Ryanair argued that T1X should not be remunerated. It said there is no evidence of incremental revenue from the project and argued that we are breaking a regulatory commitment to ensure T1X would not result in an increase in airport charges.
- 6.16 Ryanair did not support rolling schemes, stating that they should only apply when Dublin Airport is maximizing the revenue potential.

Decision on Commercial Revenues

- 6.17 We continue to forecast commercial revenues using econometric estimations of revenue-passenger elasticities based on historical DAA data.

These elasticities are combined with 2013 levels and our passenger forecast to generate the 2015-2019 forecasts. Despite representations made by DAA we continue to believe that this approach is superior to a bottom up approach which may conduct a unit by unit investigation of revenues while missing the interaction between units.

Chart 6.2: Tracking 2019 CR per PAX from Draft to Final (€)



6.18 The revenue expected per passenger by 2019 has remained similar to the Draft Determination. Revised data on 2013 outturns and capital projects have increased the per passenger revenue. Revised data, error correction and changes in policy due to representations have resulted in updated elasticities which reduced revenue per passenger. Revised passenger forecasts have reduced revenue per passenger, this is because our overall elasticity is less than one – a 1% increase in passengers results in a 0.64% increase in total revenue thus reducing the revenue per passenger.

6.19 Revenues in 2013 are used as the base for our forecast. At the time of the Draft Determination we used provisional data provided by DAA in January 2014. Following the publication of the audited regulatory accounts for 2013 this data has been updated. The 2013 revenue is €2.4m higher than the provisional number in the Draft Determination. This increases our forecast in each subsequent year by this amount.

Passenger Elasticities and Econometrics

6.20 Our passenger-revenue elasticities have changed from the Draft Determination for the following reasons:

- In the Draft Determination we created the net retail revenue by subtracting a negative number for cost of goods sold (COGS) (i.e. we effectively added rather than subtracted COGS). We have now fixed this error. This error only affected the estimation of elasticity and not the base revenue for the forecast.
- Data originally provided by DAA did not include COGS data for 2001-2004.

DAA has now provided us with this data and we have re-estimated elasticities using data that now goes back to 2001.

- Since the Draft Determination DAA has provided us with final monthly data for 2013. This data is used for the regression analysis; the updates have resulted in minor movements, for example moving advertising (without a trend) from 1.13 to 1.14.
- In the Draft Determination we included a time trend in the estimation of all elasticities. DAA argue that this trend variable should be carried forward when generating the forecasts for 2015-2019. We do not believe that the trends will necessarily continue and so reject this idea. For car parking DAA has itself argued that the trend will not continue, so we continue to estimate the elasticity including a trend but do not carry this trend into our forecasts. For other categories we now use the regression specifications, shown in Appendix 6, which exclude trends. This has increased the sensitivity of Advertising and Other to changes in passenger numbers while it reduced the sensitivity for Retail and Property Concessions.

6.21 The new elasticities are listed in Table 6.2. The overall weighted elasticity has reduced from 0.70 to 0.64. This implies that a 10% increase in passenger numbers should result in a 6.4% increase in revenues.

6.22 DAA references the UK regulator's approach to commercial revenues at Gatwick and Heathrow as a reason why we should change approach. While the CAA built its forecast from the bottom up, we estimate that the implicit elasticity in the final licences over the five year period 2013/14 to 2018/19 is 4 for Heathrow and 2 for Gatwick, both significantly higher than our overall elasticity of 0.64.

Table 6.2: Changes in Elasticities from Draft to Final

Category	Draft	Final
Net Retail	0.9	0.67
Car Parking	1	0.99
Property Rents	0	0
Property Concessions	0.45	0.20
Advertising	0.8	1.14
Other Revenue (excl CBP)	1.3	2.08
Overall Weighted Elasticity*	0.70	0.64

*Before Revenue capex uplifts

Adjustments for Revenue Generating Capital Projects

6.23 We continue to uplift our forecasts for revenue generating capital projects for which we have made allowances. Details on capital allowances are in Appendix 5. We have updated our modelling of these projects based on business models provided by DAA. Our uplifts are additional revenues net of incremental operating costs for the projects. DAA have also brought forward the start dates for some of the projects. Table 6.3 reassesses these projects based on the project cost, the contribution to the till and the amount of risk remaining at the end of 2019. During the CIP consultations held by DAA in early 2014 users were assured by DAA that the revenue projects would reduce airport charges, however, as can be seen from the net contribution column a number are now negative

contributors for the period 2015-2019.

- 6.24 DAA has put forward two new projects in addition to its original CIP, a larger extension to the T2 MSCP and a business lounge in the area past US preclearance. We have not allowed these projects. If we had, both of these would have resulted in an increase in airport charges. They are discussed in more detail in Appendix 5.

Table 6.3: Contribution from Revenue Generating Projects

	Project cost	Net Contribution 2015-2019*	Amount Remaining in RAB 2019	
Long Term Car Park Resurface (2016) [#]	6.7	1.3	6.2	91%
T2 MSCP Option 1 (2016) [#]	12.4	-.3	11.3	91%
T2 MSCP Option 2 (2016)	27.1	-2.0	24.7	91%
Car Rental Centre (2017) [#]	10.1	.8	9.1	91%
Commercial Hanger Infrastructure (2016) [#]	.6	.1	.5	87%
Cargo Terminal Development (2016) [#]	2.2	.4	1.9	87%
Digital Advertising (2015) [#]	1.0	.5	.6	57%
CBP Lounge (2015)	2.0	-.1	1.7	84%
Commercial Property Refurbishments (2015) [#]	10.6	.3	8.2	78%

Source: DAA Business Models, CAR calculations

*Net contribution is assumed incremental commercial revenues less incremental opex, depreciation and return on capital. [#]Project has been allowed.

- 6.25 We have not adjusted our forecasts for possible disturbances to retail revenues during refurbishments. Our base year (2013) had an average amount of retail refurbishments (€2m from an €11m 5 year program) and this average level of disruption fed into our forecasts. Similarly we have not applied uplifts to retail for when refurbishments are complete. Overall we believe retail refurbishments are revenue protecting rather than revenue generating.
- 6.26 For car park capital projects we have applied downward adjustments for construction periods as both the resurfacing of the existing red car park and the extension of the T2 MSCP would involve closing sections for a period of time. Our adjustments are from the business models provided by DAA.

Access to Installations Fees

- 6.27 DAA propose to introduce charges for CUSS and CUTE during the next regulatory period, it indicated that it expects to collect about €4m per year in total. Any increases in ATI fees must be approved by this office. Rather than prejudge that process, we retained the €2.2m p.a. cap for 2015 to 2019.
- 6.28 Should DAA get approval for increased charges and collect ATI fees over €2.2m p.a. adjustments will be made in the next regulatory period (the same applies if it under collects). While we acknowledge DAA's point that the sums are small, we agree with Ryanair that the treatment provides a safeguard against opportunistic price increases for access to installations.

6.29 In 2015 we apply an adjustment to the price cap to claw back €1.9m for collecting more in the period 2010-2013 than expected in the last Determination. Any deviation between expected and outturn revenues from ATI for 2014 will be dealt with in the 2019 Determination.

Disaggregated Forecasts

6.30 We have not attempted to further disaggregate our forecast for commercial revenues.

6.31 This means that we have not applied any adjustments to our commercial revenue forecasts on account of differing growth rates for different passenger groups. DAA wanted us to apply a downward adjustment to the forecast because it expected the proportion of transfer passengers to grow. While there may be a case that transfer passengers spend less in the airport, growth in this sector is likely to be accompanied by growth in long-haul traffic. Based on outturns data, long-haul passengers, to duty-free destinations, spend more at Dublin Airport than short-haul passengers.

6.32 Nor have we attempted to identify the incremental retail revenues that might be attributed to T1X. We acknowledge that this means we cannot demonstrate that the amount of capital remuneration allowed for this project does not exceed the incremental revenues it is expected to generate for the next five years. For the period 2010-2014, the revenues from retail were broadly in line with our 2009 forecast which had included an uplift on account of expected incremental revenues from T1X. We think repeating such an exercise, and attempting to isolate the effects of T1X for retail revenues, is now near impossible. A lot has changed since the opening of T1X in April 2009 including: the opening of T2 which almost halved the number of passengers using T1 and changed the passenger mix in the terminal; an overall decline in passengers at the airport; and declines in Irish GDP and retail sales. It is true that since the opening of T1X the retail and concession revenue from T1 Airside has declined, however generating a counterfactual of what revenues for T1 would be without T1X would be highly speculative.

Till Exits – Hangars and Dublin Airport City

6.33 Our approach to commercial revenues, in terms of what sources of income we have regard to and include in our calculations, is unchanged from the Draft Determination. This is the same as in previous determinations. As indicated in the Draft Determination, since 2009, we have consulted with parties about the possibility of changes to the regulatory till. Following that consultation, we indicated that there were circumstances in which we would consider excluding revenues from the regulatory till and allow DAA to assume the risks from proceeding with a project. We remain committed to this idea; that where such a change may protect the interests of current and prospective users and allow DAA to develop the airport at its own risk, we will implement such a change.

6.34 We have made no allowance for future capital (or operating) expenditure on projects that might relate to Dublin Airport City. The representations from users suggest that they would like to be protected from the risks of

such a venture affecting future airport charges. We have also included no allowances for incremental commercial revenues that any such investments in the next five years might generate. This is the same approach as adopted in 2009.

- 6.35 We have rejected DAA's representation that we exit from the regulatory till the lands and assets related to the project, adjusting the current RAB down by €27m. This value was derived from a study DAA commissioned to value the land and assets. DAA circulated the study's findings in July 2014 to airline users who had signed a non-disclosure agreement. Both airlines who responded expressed reservations about the approach taken to arrive at the valuation. We have reviewed the study and the airlines' responses and concluded that the proposed valuation should not be relied upon as the basis for adjusting the RAB should DAA decide to proceed with the Dublin Airport City project. In particular, we agree with the airlines' contention that the terms of reference for the study should have been to estimate current market values.
- 6.36 Nevertheless, if DAA does decide to proceed with the project, we are willing to let it assume all of the associated risks (upside and downside). To give effect to this, we would make a one-off adjustment to the RAB and also cease to have regard to certain commercial revenues (currently worth a little over €1m per annum). We have commissioned our own study to value the assets that would no longer be available to airport users should DAA proceed with Dublin Airport City. When that study is complete and we have reviewed its findings, we will advise parties on what we think an appropriate RAB adjustment would be, should DAA commence the development. Any such adjustment would fall to be made to the opening RAB for the next determination in 2019, by which time uncertainty about if and when DAA intends to proceed with the project may have been resolved.
- 6.37 DAA claim we have included revenues which are due to investments outside of the till as part of the Dublin Airport City (DAC) project. Our forecasts use 2013 as the base year; the 2013 data does not include revenues from the DAC investments. For the properties concerned, the revenue in 2013 is broadly similar to the revenue in years prior to DAA purchasing the leasehold on the Clarion Hotel or the former Aer Lingus building. Our base may include some incremental revenue from the PCB building but DAA no longer propose exiting this (and other competing buildings) from the till.
- 6.38 As in the Draft Determination we continue to include hangar income in our forecasts despite DAA's claim that hangar income should be removed from the till. In 2009 we disallowed a capex project to refurbish hangars and due to this disallowance we revised downward our forecast for hangar income 2010-2014. We did not state that hangars were to be removed from the till. These events occurred before the consultation on and formalisation of the process to remove items from the till. To date, DAA has not submitted a formal proposal to exit hangars from the till. Should DAA wish to exit hangars from the till it would need to consult with users and propose an exit value. The value of hangars including the land they are on would likely exceed the disallowed hangar capex. In addition DAA received commercial revenue from hangars during the last determination

which was not part of our forecasts.

- 6.39 If the capital expenditure had been accounted for in our 2010-2014 capex reconciliation the RAB would not have increased as expenditure in the Revenue group is over allowance.

Rolling Schemes for Commercial Revenue

- 6.40 As proposed in the Draft Determination we will introduce a rolling scheme for commercial revenues. We have expanded the scheme to all areas of commercial revenue. This will strengthen incentives for DAA to maximize all areas of commercial revenues irrespective of where in the regulatory cycle it is.
- 6.41 The scheme will have per passenger targets for retail, car parking and advertising and a gross target for property revenue (rents and concessions). The only element of commercial revenues excluded is ATI fees. It would not make sense for us to incentivise DAA to maximize ATI fees considering our treatment of adjusting for over or under collection of these fees.

Table 6.4: Commercial Revenue Rolling Scheme Targets

Per Pax, €	2016	2017	2018
Retail revenue per passenger	2.66	2.63	2.61
Car parking revenue per passenger	1.27	1.38	1.38
Advertising	0.19	0.19	0.19
Other Revenue	0.67	0.67	0.68
Gross, €m	2016	2017	2018
Property Rents and Concessions (excl ATI)	37.4	39.3	40.0

- 6.42 The targets reflect our forecasts, except for car parking in 2016 which reflects the base forecast rather than including the reduced incremental revenue from the construction of the extension T2 MSCP.
- 6.43 DAA has agreed to publish outturns for these categories in its regulatory accounts. Our financial model shows how these schemes will be rolled forward in 2019.

7. Capital Costs

Table 7.1: Capital Costs

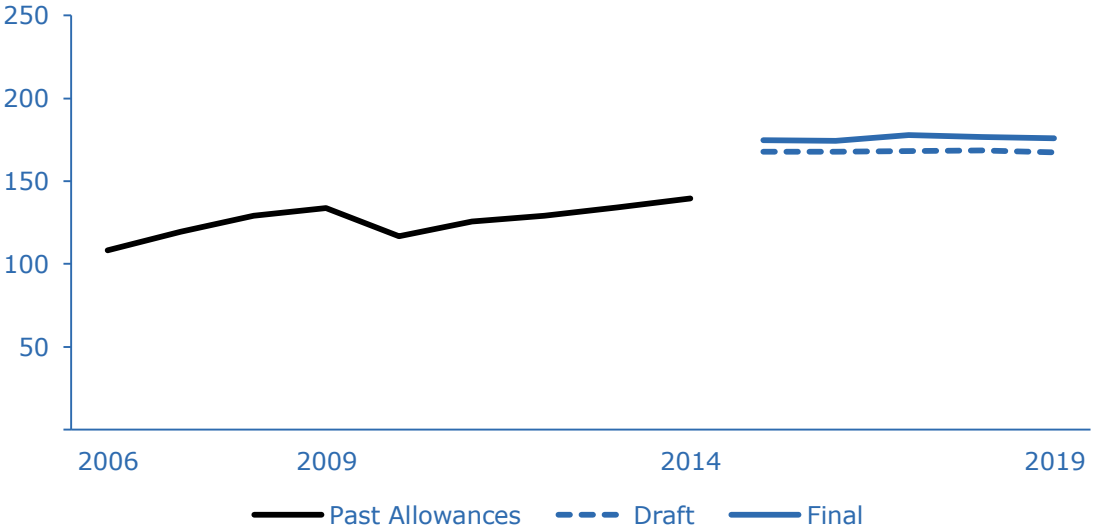
	2013	2014	2015	2016	2017	2018	2019
Total, €m	134.3	139.5	174.8	174.2	177.7	176.8	176.0
Per Passenger, €	6.49	-	7.91	7.66	7.59	7.34	7.10

Source: 2013-2014 Allowances from 2009 Determination. 2015-2019 CAR Allowances.

- 7.1 For capital costs we are allowing DAA to recover an average of €176m per year. This is about €40m higher than the amount allowed in 2013 and €9m higher than the amount we allowed in the Draft Determination.
- 7.2 This estimation differs from the Draft Determination for the following reasons:
- Our treatment of the T2 overspend has changed, we have allowed DAA recover 50% of the overspend, this adds about €4m per year to capital costs;
 - Changes to outturn spending for the period 2010-2014 added €27m to the opening RAB, we have not changed our approach to reconciling this spend, rather expectations on outturns have changed. In particular the 2009 trigger for apron 5G was reached since the Draft Determination;
 - Based on representations received we have allowed an additional €47m of capital expenditure in 2015-2019, bringing the total to €341m with an additional €308m possible as triggered projects;
 - We have re-adjusted the depreciation profile to smooth the price, total accelerated depreciation is now €84m, €9m less than the Draft Determination.

The cost of capital remains at 5.8%, the level set in the Draft Determination.

Chart 7.1: Capital Costs

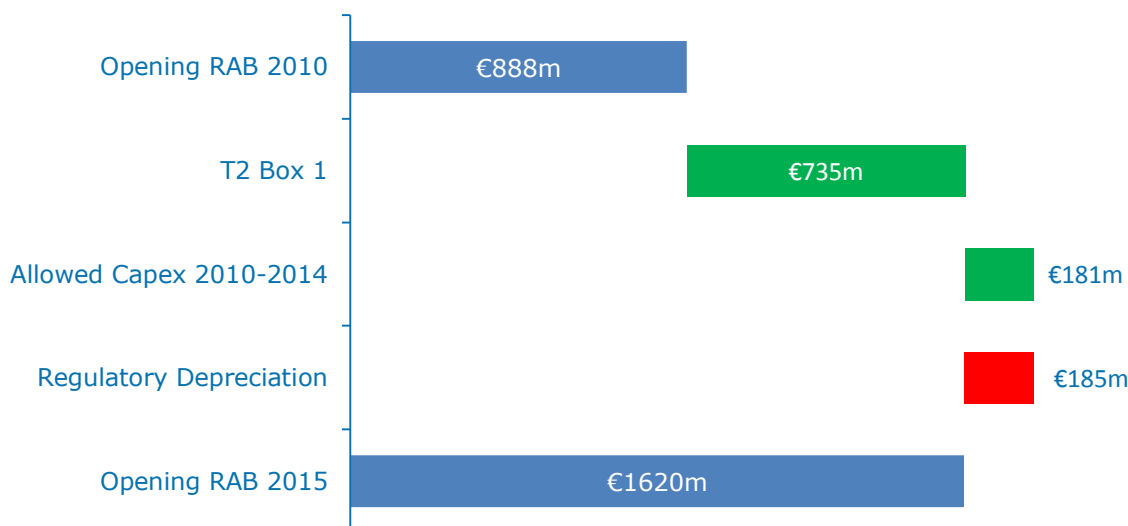


Reconciliation of Past Capital Expenditure

- 7.3 The opening RAB in 2015 is €1,620m. This is €91m higher than the Draft

Determination. We have changed our approach to the reconciliation of T2, allowing some of the overspend to enter the RAB. We have not changed our approach to 2010-2014 reconciliation but changed outturns for 2014 add €27m to the RAB while at the same time we claw back some additional interest for deliverables that DAA no longer expect to deliver. Chart 7.2 shows how the opening RAB is arrived at.

Chart 7.2: Deriving the Opening RAB for 2015



Representations Received on Reconciliation of past Capital Expenditure

- 7.4 DAA objected to our decision not to allow any expenditure on terminal 2 over and above the original allowance of €778m. It argued that the entire €932m spent on the project should enter the RAB.
- 7.5 DAA characterised our decision on this matter as “an outlier in terms of regulatory practice”. DAA stated that when regulated utilities overspend on capital projects, regulators will not typically disallow the entire overspend unless this overspend constitutes “manifest inefficiency”.
- 7.6 DAA argued that the project was efficiently managed and successful. It submitted a report from its project manager and engineer, Arup, in support of these arguments. Arup stated that the outturn cost of the project was only 8% over the concept design stage cost plan.
- 7.7 DAA also considered that it was wrong for us to calculate overspend with reference to Cost Plan Number 1, as this cost plan was not an estimate of maximum likely costs. It was merely an estimate based on the concept design and information to hand at the time. At the time, several issues with the project had yet to be resolved, including securing planning permission and procuring trade contractors.
- 7.8 DAA’s contingency costs ultimately amounted to €116m.⁷ Our allowance for contingency costs had been €74m (after DAA’s original proposal of €99m contingency was rejected). DAA contended that the difference

⁷ Numbers from representations have not been adjusted for price base. DAA use nominal prices.

between allowed and spent contingency costs, €42m, was entirely explained by the programme schedule. In particular, the excess costs were attributable to the delay and prolongation of trade contractors, logistics and welfare arrangements at the site. Unexpected complications around securing a fire certificate were cited as a factor contributing to the higher costs incurred.

- 7.9 DAA and Arup emphasised that at the time there was a pressing demand for the new terminal and the project was completed to a relatively short timescale. The procurement and delivery strategy adopted sacrificed early cost certainty in order to hasten completion of the project.
- 7.10 DAA also argued that it was not appropriate to inflate the 2006 estimate of the project cost into 2013 prices using CPI. At the outset of the project, DAA secured contracts in nominal prices with the underlying assumption that construction price inflation would be 5% per annum. DAA argued that it had no option but to lock in these nominal contracts when it did. In the event, Ireland experienced deflation in 2009 and 2010, meaning the inflation risk DAA took when securing these contracts has affected them adversely. Because construction prices fell at a faster rate than CPI, this adverse effect would have been mitigated if we had used construction price inflation to index the 2006 cost rather than CPI. DAA objected to our continued use of CPI, stating that when other regulators set capital allowances they will – in various ways – take into account the difference between general inflation and construction price inflation.
- 7.11 DAA argued that the current patterns of usage of terminal 2 indicated that the facility was not oversized, contrary to our previous assessment. DAA argued that since it was now able to show the terminal is not oversized, the full allowance should now be incorporated into the RAB. DAA showed that the actual ratio of passengers in the busy hour to passengers throughout the year was higher than the ratio we had allowed for, and calculated that if we had used this higher ratio, our own approach would indicate that the terminal is an appropriate size for the number of passengers it currently serves.
- 7.12 DAA also restated its objections to our decision to remunerate spend on terminal 2 through a tilted annuity. One of these objections was a general objection to the back loading of remuneration, even where this was NPV-neutral. DAA stated that it objected to this back loading because the future was inherently uncertain and because it used a different discount rate when making internal decisions. DAA also objected to the decision to unitise the return over the passenger band from 18m to 43m rather than from 18m to 33m, stating that the latter value should be used because it was our estimate of the total capacity of T1 and T2.
- 7.13 For capital expenditure in the 2010-2014 period, DAA made specific comments on how we had reconciled a number of projects. These are summarised and responded to in Appendix 4.
- 7.14 Aer Lingus, the enterprise agencies and IATA supported the approach taken in the Draft Determination for capex reconciliation.
- 7.15 Ryanair supported our adjustments to allowances for deliverables not

delivered. It made some specific comments on the reconciliation of a number of projects relating to DAA's 2010-2014 capital expenditure which are summarised and responded to in Appendix 4.

- 7.16 Sky Handling also commented on specific capital expenditure projects relating to the 2010-2014 reconciliation. Again, these are summarised and responded to in Appendix 4.

Decision on Reconciliation of past Capital Expenditure

- 7.17 The treatment of capital expenditure, unlike the other building blocks, has been an issue at determinations before and after the outturn is known. We make an allowance for future investments, having considered the needs at the airport. At the next determination, we review DAA's actual investment in the intervening period and decide whether to make an adjustment to the allowance we had previously included in our calculations.

- 7.18 To the extent possible, we would like the ex post regulatory review of actual investments to be predictable. This will help meet our statutory objectives. To enable DAA to operate and develop the facility, DAA has to have the confidence about how an investment will be treated in future regulatory reviews. At the same time, the reasonable interests of current and prospective users need to be protected, so it is important that DAA knows it is operating within a capital budget. We also want to allow some flexibility, rather than setting five-year capital plans, since that should facilitate more efficient and economic development of the airport.

- 7.19 The RAB roll-forward principles were developed at the time of the 2009 Determination for this reason.⁸ The approach we have proposed for treating capital expenditure undertaken between 2015 and 2019 is the same as the approach proposed in 2009 for the period 2010-2014. No party objected to this proposed approach: DAA in its response to the Draft Determination stated its support for what it termed the "envelope approach". Instead the objections about what capital expenditure to allow for the next five years related to how much investment should be allowed.

- 7.20 On this basis, we are comfortable that the treatment of capital expenditure incurred in the period 2010 to 2014 should follow the approach set out in the Draft Determination. It is the approach we indicated in 2009, prior to DAA undertaking the investments, so all parties should have understood the approach. We have still made some changes to the amount we allow to roll forward into the next RAB for capital expenditure in the period 2010-2104, because of new information and because of representations made by parties that in some cases persuaded us to change the amount we roll forward so as to be consistent with that framework. We discuss these points later.

Reconciling Capital Expenditure on Terminal 2

- 7.21 That leaves open the question of T2 remuneration. The allowance for that expenditure preceded the RAB roll-forward principles. Nevertheless, we were guided by those principles when reconciling non-T2 capital

⁸ See Annex 3 of the 2009 Determination.

expenditure from 2005-2009. The original 2009 Determination was appealed by a number of parties, including DAA. The Appeal Panel referred back a number of items, including the treatment of indexation when reconciling capital expenditure and the treatment of Pier D outturn costs. DAA cites that Appeal Panel to support its contention that we should change how we reconcile T2 outturn expenditure.

7.22 Thematically, DAA appear to offer three arguments that might justify allowing more than the €778m allowed in the Draft Determination:

- the original allowance in 2007 was insufficient, and should have had regard to the contingency costs DAA argued for at the time;
- there were good reasons for actual costs to deviate from forecast costs – the effect of deflation, delays in getting planning permission, the need to satisfy fire-marshall requirements; and
- our approach has no regulatory precedent.

7.23 We are not persuaded that the first argument, in isolation, would warrant a change in approach. The focus on contingency costs ignores the fact that in disallowing this sum, in response to the 2009 Appeal Panel referral we observed that had we concurred with DAA's arguments about contingency costs it would have consequential implications for how we considered other individual cost items: the overall budget for the project only looked reasonable if a sum of around €27m was disallowed.⁹

7.24 More importantly, the whole rationale for making a decision about what capital expenditure to allow prior to an investment proceeding would be put into question if we accepted this argument. It would be hard to see how the regulator could protect the interests of prospective users if it was accepted that DAA's original costing for a project should take primacy; there would be no point in parties making representations about an appropriate allowance for building a new terminal. An alternative interpretation is that, notwithstanding the original allowance, all parties should be afforded further opportunities at subsequent determinations to revisit earlier debates about a suitable allowance. We think that such uncertainty would be in no-one's interest, including DAA.

7.25 The stronger arguments, at a theoretical level, are that regulatory precedents from elsewhere demand a different approach where out-turn spend exceeds the original allowance and there is no obvious inefficiency giving rise to this overspend.

7.26 We commissioned SDG to review how other regulators reconcile capital expenditure with previous allowances. From that exercise, we conclude regulators differ in their approaches but that our proposed treatment of Terminal Two costs in the Draft Determination was an outlier. Some regulators tend to allow all outturn capital expenditure to be remunerated unless a review finds that there were serious deficiencies in how the regulated entity proceeded. Others require that the regulated entity should only be allowed to recover a fraction of the costs of any overspend, with that fraction typically being no less than 50%.

⁹ See paragraph 4.187, CP2/2009, <http://www.aviationreg.ie/regulation-of-airport-charges-dublin-airport/2005-airport-charges.120.html>

- 7.27 This latter approach was the one adopted by the UK Competition Commission in its review of Northern Ireland Electricity's price determination in March 2014, one of the most recent decisions to visit this question of how to reconcile outturn capital expenditure with past allowances. In reaching its decision, it had regard to regulatory precedent. It concluded that cost pass-through subject to efficient spend did not offer sufficient protection to users; costs might rise because of inefficient expenditure or missed opportunities to realise efficiency savings that an ex-post review was unlikely to identify. It also observed that there were expenditure forecasting risks, since it was difficult to make accurate forecasts of investment costs. This latter risk suggested that it was unreasonable to expect the regulated entity to incur all the risks around a cost overrun; the former danger of insufficient incentive to realise efficiencies required that the regulated entity bear some of the risks. Having regard to regulatory precedent, most notably Ofgem's regulation of UK energy companies, and exercising its own judgement, the Competition Commission decided that the risks of cost overruns should be split 50-50 between the regulated entity and users.
- 7.28 The approach the Competition Commission adopted is one that we find attractive. It has attractive incentive properties which should promote the efficient and economic development of the airport and it removes regulatory uncertainty about how we will treat cost overruns. As noted later in this document, it is how we propose to reconcile expenditure on any of the trigger projects DAA might undertake in the period 2015-2019.
- 7.29 The question remains though whether it is relevant when reconciling T2 expenditure. At the time of the Interim Review, we talked about providing "high powered incentives" to encourage DAA to build the facility efficiently. We think that rules out permitting a cost-pass through, even if it was subject to a check that the costs were not obviously inefficient. Even adopting an approach of sharing the costs of the over-run would arguably be at odds with reasonable expectations parties may have had in 2007, given statements that "the risk of any cost over-run would be borne by the DAA."¹⁰ Against that, there is a risk that if we adopt a regulatory approach seriously at odds with other regulators regarding reconciliation, capital markets may refuse to lend to DAA in the future. This could be at odds with the Ministerial Direction's reference to the need to secure lender confidence.
- 7.30 On balance, we have decided to change our approach at the time of the Draft Determination and adopt a 50-50 split. This approach to reconciling the difference between capital expenditure outturns and past allowances is high powered relative to other regulators. It strikes a balance between protecting the interests of current and prospective users from having to pay for all cost overruns while enabling DAA to operate and develop the airport in a sustainable and financially viable manner. We have sought to secure lender confidence, with a regulatory approach used by other regulators.
- 7.31 We have pro-rated the extra allowance between "box 1" and "box 2", so that some of the extra allowance will only enter the RAB if passenger

¹⁰ Page 19, CP5/2007, http://www.aviationreg.ie/fileupload/Image/PR_AC2_PUB2_CP5_2007.pdf

numbers exceed 33 million.

- 7.32 We have not been persuaded to reconsider the two-box approach. We continue to believe the generality of users should not have to pay for a facility that offers additional capacity that they do not require. DAA was aware of the basis for remunerating the project when it undertook the investment. In 2007, we offered DAA the opportunity to fund the terminal by means of peak or differential pricing. DAA chose not to take up this offer. Claims that the facility is now popular at the busiest times of the day do not demonstrate that those users would have been willing to operate at that time had they been asked to pay more to do so. If DAA believes that demand at those times of day is inelastic and airlines are unwilling to change their schedules, it should charge more for the cost of the extra capacity required at those times. Otherwise, DAA should seek to maximise the use of terminal and runway facilities throughout the day, rather than developing capacity that provides only marginal benefit to the users operating at those times; the rationale for a two-box approach remains and so we see no reason for changing this aspect of our approach to remunerating the project.

Reconciling 2010-2014 Capital Expenditure

- 7.33 Our approach on 2010-2014 capex reconciliation has not changed since the Draft Determination. We continue to be guided by the RAB roll forward principles.
- 7.34 We received no representations from users disagreeing with our approach, rather representations referred to treatment of specific projects. Our consideration of these representations resulted in us increasing the RAB by about €2m and are summarised in Appendix 4.
- 7.35 There was a further increase in the RAB of €25m because of updated information from DAA since the time of the Draft Determination. We received updated information on spending outturns and forecasts for 2010-2014 and updates on the expected status on deliverables. The most notable change concerned work on a new apron development. DAA notified the office that stand availability in the peak week had exceeded 74 stands in June 2014, satisfying one of the capex triggers in the last Determination. We have added the costs allowed for this trigger of €24m into the opening RAB, while revising down our future investment allowance since the trigger pre-empts the need for the Apron 5G development.
- 7.36 The amount entering the RAB is now €181m, €27m higher than in the Draft Determination. At the same time we are clawing back interest on an additional €16m of allowance for projects not delivered. DAA no longer expect to deliver the *Repairs to Departures Road* or *Cuckoo Culvert* projects. The final status of deliverables is contained in Appendix 4. These changes combined (including removing Apron 5G from 2015-2019 spending) result in a price cap increase, all else being equal, of about €0.02.
- 7.37 Table 7.2 shows how allowances, spending and the amount entering the RAB have changed on a group level since the Draft Determination. The amount entering the RAB for each group is the smaller of the allowance or

the amount spent. The initial 2009 allowances have been updated for interim consultations and deliverables not delivered. Changes to the treatment of individual projects since the Draft Determination are given in Appendix 4.

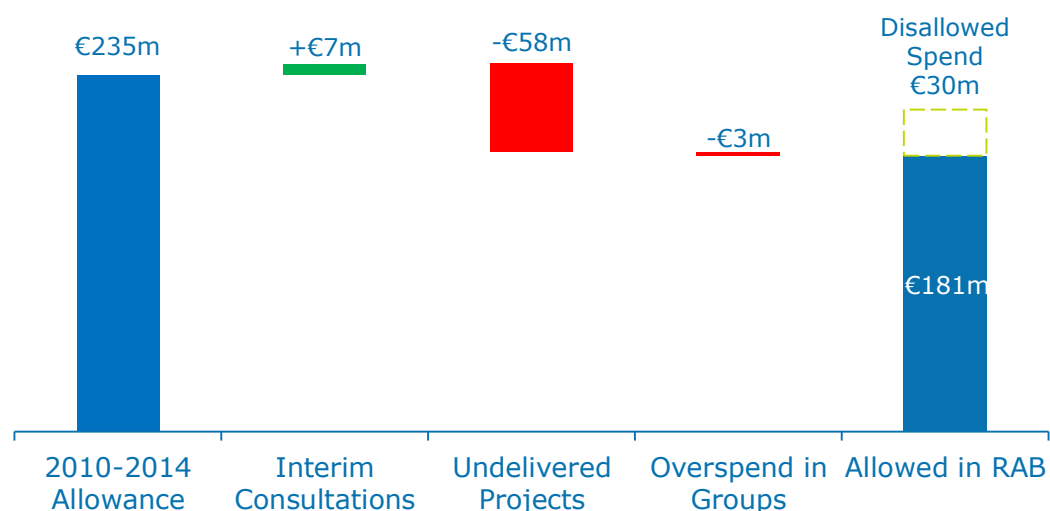
Table 7.2: Change: Draft to Final, 2010-2014 Capital Expenditure (€m)

	Allowance		Spent		Allowed in RAB	
	Change	Final	Change	Final	Change	Final
Airport Operations		45		45		45
Landside Infrastructure	-4	15	+1	15	+1	15
Piers and Terminals		13		31		13
Plant and Equipment		3	+0.5	1	+0.5	1
Retail		11		11		11
Revenue		3	+2	10		3
Stands and airfield		27	-6	28		27
Utilities	-11	12	+4	14	+2	12
Programme management and contingency		21		21		21
Triggers	+23	34	+24	35	+23	34
Total	+8	184	+25	211	+27	181

Source: DAA outturn data. The calculations exclude 2014 capital expenditure on projects included in the 2015-2019 capital expenditure allowance totals. They also exclude capital expenditure on projects DAA wants excluded from the regulatory till. Change columns show change from Draft Determination.

- 7.38 For capital expenditure in the period 2010-2014 we have allowed €181m to enter the RAB. This is less than the original allowance set in 2009 of €184m (including triggers) and less than DAA's outturn spending of €211m.
- 7.39 DAA started the period with an allowance of €235m. The adjustments to this allowance which resulted in €181m entering in the RAB are shown in Chart 7.3. DAA's failure to deliver projects which were required deliverables reduced this allowance by €58m; of the 23 projects which were marked deliverables in 2009 only 12 were completed. Interest received on this amount during 2010-2014 has been clawed back. DAA increased the allowance with interim consultations it held with users by €7m. We reconciled spending on a group level, and overspending on groups has resulted in a downward adjustment of €3m.
- 7.40 On projects which we made an allowance for in 2009 final spending by DAA was about 12% under budget. Despite this €30m of capex has been disallowed. The reason for the disallowance is not overspending on projects which DAA consulted on and got an allowance for but rather spending on projects for which there was no allowance and either there was no consultation with users, or the consultation with users failed to solicit support for a higher allowance. DAA do have flexibility to spend on projects outside of the original CIP but to protect the interests of current and perspective users this flexibility is contingent on not going over the allowance for a group.
- 7.41 The approach of reconciling at the group level is that same as our plan for reconciling 2015-2019 capex and is the approach DAA proposed in the 2014 CIP consultations.

Chart 7.3: Evolution of 2010-2014 Allowance



Source: DAA outturns, CAR calculations, 2009 Determination

2014 Capital Expenditure

7.42 Since the Draft Determination DAA has refined its forecasts for 2014 capital expenditure. At the time of the 2019 Determination we will revisit 2014 outturns and also check deliverables due for completion in 2014 have been completed (these projects are indicated in Appendix 4.) We recognize that for some of the investments DAA expects this year, including the apron stand development, work may continue into 2015. A regulatory approach that automatically penalised investments that span across two determinations would be inconsistent with facilitating the efficient development of the airport: for certain investments, users' interests will be best served if major works occur in the autumn and winter months rather than in the busier summer season. For this reason, our reconciliation of 2014 capital expenditure may have regard to expenditure incurred in early 2015 on projects DAA included in its forecast for 2014 capital expenditure. Allowances for deliverables not expected to be completed by early 2015 do not carry forward to the next regulatory period. We envisage applying a similar approach for investments DAA might want to make in late 2019, early 2020.

Capital Expenditure Allowances 2015 -2019

7.43 Since the Draft Determination we have increased the 2015-2019 capital expenditure allowance from €294m to €341m.¹¹ Should certain events occur, a further €308m of triggered capital expenditure will be allowed. This compares to €298m of trigger capital expenditure in the Draft Determination. Based on representations received we have changed both the projects allowed and the cost of those projects.

Representations Received on Capital Expenditure Allowances 2015 -2019

7.44 Of the 33 responses received 32 commented on the 2015-2019 capital

¹¹ This excludes the Apron 5G project which is now a 2010-2014 triggered project

expenditure allowance. There was a diverse range of views with the majority calling for more capex than the Draft Determination. For the most part parties commented on specific projects and those comments are summarised in Appendix 5. The more general comments are summarised here.

- 7.45 ACI stated that Dublin Airport should be investing in projects which will encourage growth. It added that the airport is best placed to decide on capital investment needs and sees only limited benefit from consultation with users.
- 7.46 Aer Lingus stated that the allowance for capex in the Draft Determination is more than sufficient and that it "should not be increased under any circumstances." Aer Lingus stated the total for the *Business Development* group is correct, although it would like DAA to be given more flexibility to reallocate money across scaled down versions of projects.
- 7.47 DAA reiterated its support for all allowed projects. DAA highlighted a number of costing errors in the EY report, EY have summarised these in its revised report.
- 7.48 DAA Trade Unions stated that the Draft Determination fails to take account of the level of investment needed for DAA to deliver the National Aviation Policy.
- 7.49 The Car Rental Council stated that we should allow the full CIP to provide "appropriate and adequate facilities to accommodate the forecasted growth in the car rental industry."
- 7.50 ICTU called for more capital expenditure to enhance the facilities at the airport, while creating a safer working environment for staff and encouraging higher productivity. It added that more capex would support jobs in construction and, in turn, increase the level of activity in the economy.
- 7.51 Maldron Hotel stated its preference for more capex, in particular projects which enhance capacity.
- 7.52 At a first take Ryanair did not support any capex in the period 2015-2019. It believed that the airport is underutilised and so new infrastructure is not needed. It believes current capacity is 35mppa. It stated that no cost breakdown was given in consultations for projects and that no business cases were provided by DAA. Without prejudice to this, it did put forward a revised capital expenditure plan costing €153m. We use the latter plan to inform the summary of its comments in Appendix 5. Ryanair stated that EY's analysis is "flawed as it proposes to allow higher expenditure than the DAA monopoly is requesting."
- 7.53 With the exception of fixed power, Sky Handling supported all allowed projects. Its comments on disallowed projects are given in Appendix 5.
- 7.54 Stobart Air stated that the allowance for capex in the Draft Determination is the correct amount of overall capex.

Decision on Capital Expenditure Allowances 2015 -2019

7.55 Based on representations received we have increased the capital allowance since the Draft Determination by €47m to €341m. We have also added 3 additional triggered projects, should certain events occur, a further €308m of triggered capital expenditure will be allowed. Based on representations received we have changed both the projects allowed and the cost of those projects. A project by project summary of responses received, our decision and reasoning is contained in Appendix 5.

7.56 This capital allowance is very flexible. While we build up the overall and group allowance with a bottom-up project by project allowance, the flexibility within groups means DAA can reassign spending between projects in the group, or prioritise spending on new projects which arise during the period. In total 76% of the non-triggered capital allowance is flexible with only 24% dependent on the delivery of certain projects

7.57 We believe that the level of capital expenditure allowed for the period 2015-2019 is consistent with enabling DAA to achieve compliance with the draft National Aviation Plan and complies with the Ministerial Direction we received. Addressing specific policies we have:

- allowed the transfer facility which will contribute to the ambition for Dublin Airport to grow its transfer traffic
- allowed cargo developments which will improve the efficiencies of cargo flows
- made an triggered allowance for the Northern Runway.

In more general terms, the NAP requires that DAA conduct a capacity review in 2015. We cannot foresee the outcome of that review. However, we envisage that a total potential capital expenditure of €649m (including triggered capital expenditure) - combined with the flexibility we have allowed DAA within groups - should be sufficient to deliver required capacity improvements for the period 2015-2019.

7.58 Our capital allowance for 2015-2019 is built up with allowances from individual projects and the cost associated with those projects. In all cases we have used the cost from DAA's CIP. In the Draft Determination we stated that work we commissioned from EY suggested that the costings DAA proposed are generally reasonable. In its response DAA identified a number of errors with the project costings, however it identified errors with projects where EY's costing was lower than DAA's. EY fixed those errors but we believe there is a natural asymmetry in errors identified. For the Final Determination we are using DAA's own costings for projects. The increase in capital allowances is derived from the project's allowed rather than the costings used.

Table 7.3: Allowance by Grouping

	CIP	Draft	Final	Deliverables
Airfield Maintenance	125	129	125	Runway 16/34 Rehabilitation Overlay Runway 10/28 Airfield Pollution Control
Business Development	103	19	67	Cargo Gate Redevelopment
IT	41	35	41	-
Landside Terminals Maintenance	39	35	39	-
Revenue	56	62	56	Completion of T2MSCP
Other	22	14	14	-
Sub Total	385	294	341	81
Trigger Projects	381	298	308	
Total*	766	592	649	

Source: DAA 2014 CIP. Excluding 5G and fuel farm. *Total possible, conditional on events detailed below.

- 7.59 As in the Draft Determination, we have allowed all projects in *Airfield Maintenance* with 46% of the allowance in this group is for projects which are deliverables.
- 7.60 We have increased the allowance for *Business Development* by €48m. Only one project, *Cargo Gate Redevelopment* is a deliverable, therefore 97% of the allowance is flexible. Users had reservations about a number of projects in this group, the flexibility will allow DAA revisit the design and planning of projects to meet the needs of current and perspective users.
- 7.61 We have made no changes to the allowed projects in the following groups, changes to the amount of expenditure are due to changes in costings:
- IT
 - Landside Terminals Maintenance
 - Other
 - Revenue
- 7.62 In Revenue we have removed the deliverable on the *Consolidated Car Rental Centre*. This gives DAA extra flexibility in this group should it, for example, wish to build the extended MSCP at T2 rather than the car rental consolidation centre.

Triggered Capital Allowances

- 7.63 Compared to the Draft Determination we have added 3 triggered projects, resulting in a total of 4 triggered projects. The only triggered project in the Draft Determination was the *Northern Runway*.

Table 7.4: Triggered Capital Allowances

Project	Trigger	Cost, €m	Price Increase €
Northern Runway (including planning, design and house buyouts).	If passenger traffic exceeds 25mppa in a 12-month period	247	0.59
Additional line-up points (15.6.013)	If declared peak capacity in the busy hour reaches 37 departures.	30	0.10
T2 HBS Standard 3 (15.4.003)	Year in which the standard is mandated for T2 by regulatory authorities.	13	0.07
Pier 2 Segregation (15.7.111)	Year in which segregation of the pier occurs, provided it is mandated by a regulating authority	18	0.06
Total		308	

- 7.64 We retain the *Northern Runway* trigger as stated in the Draft Determination. In 2008 the existing runway configuration handled 23.5m passengers with a busy hour declared capacity of 31 departures. In 2009 we set the trigger for the northern parallel runway at 23.5m passengers. The declared capacity has now increased to 33 departures a 6.5% increase. We therefore have now increased the runway trigger by 6.5% to 25mppa. We understand that runway demand is concentrated in the peak hours, and given a choice airlines will choose to fly at a time most convenient to them. The two largest airlines at Dublin Airport have indicated to us that they would expect DAA to be able to direct growth to times of the day other than the peak hours; this approach is consistent with DAA maximizing the use of existing facilities. Once conditions outlined above are met the price cap will increase by €0.59 which will remunerate the planning, design, preparation and construction of the parallel runway. DAA can commence preparation in advance; we will reconcile all expenditure (including expenditure in 2010-2019) in the Determination which follows the opening of the runway.
- 7.65 In making an allowance for the *Northern Runway*, we are aware that some parties have expressed concerns about the possible decommissioning of runway 16/34. The current master plan envisages new piers replacing piers 2 and 3 to enhance stand capacity to complement the capacity provided by a parallel runway. But the position of the piers would require the decommissioning of runway 16/34.
- 7.66 IALPA raised concerns that decommissioning runway 16/34 would lead to a large number of diversions (for example 2,227 diversions in December 2013). Aer Lingus and IATA both alluded to concerns about the need to retain a crosswind runway in their representations.
- 7.67 IAA informed us that between May 2011 and August 2014 13,249 arriving flights required use of the crosswind runway and by implication would have been diverted if not available. This represents 5% of arrivals. IAA stated that "it is the IAA's preference that the crosswind runway (16/34) is retained at Dublin Airport. It is the only north-south aligned runway in the State that is available on a H24 basis and that can accept the larger

aircraft types. It is necessary to facilitate safe operations when meteorological conditions are outside the limits for Runway 10/28." IAA's correspondence is annexed to this report.

- 7.68 Clearly, a situation where the airport was closed to incoming traffic with the frequency reported by IAA would not be consistent with maximising use of the airport facilities. This is a concern that DAA should address in the next couple of years as it prepares a new master plan. To protect the interests of current and prospective users, the allowance for the Northern Runway in future determinations will be conditional on DAA operating an airport that is capable of remaining open to the arriving traffic in conditions that the existing airport configuration currently serves
- 7.69 We have introduced a trigger for *Additional Line-up Points*. The runway improvement group has identified methods, to increase declared capacity to 37 departures in the busy hour (without capex). Once the declared capacity in the busy hour reaches 37 departures DAA will get remunerated for the *Additional Line-up Points* with a price-cap increase of €0.10. The additional line-up points have the potential to bring declared capacity in the busy hour to 39 departures.
- 7.70 We have introduced a trigger for *T2 HBS Standard 3*. We continue to believe the equipment will not be required in this regulatory period, however, to provide certainty to DAA we will remunerate the project with a price cap increase of €0.07 from the date the regulatory requirement states the equipment is required to be in operation (currently expected to be September 2020).
- 7.71 We have introduced a trigger to enable DAA to achieve separation of arriving and departing passengers in pier 2 if mandated. The Revenue Commissioners previously mandated that DAA include a business case for pier 2 segregation in the 2014 CIP. DAA included a project in the CIP, but we believe that project is an expensive alteration to an aging pier which will be replaced in the medium term. This investment would not represent the efficient development of the airport and would not be in the interest of users, we therefore have not made a straight allowance for the project. However, we acknowledge that should the Revenue Commissioners mandate it, the cost of segregating the pier would better serve the interests of users than closing it or restricting its use. Should that occur the price cap will increase by €0.06 once segregation is achieved.
- 7.72 For the purpose of allowing sums into the opening RAB in 2020, the trigger event for the Northern Runway must have occurred by end of March 2019. After that date, to protect the interests of prospective users we will revisit the question of whether to make an allowance for a runway and what sum that might be in the context of making a new determination. DAA will have an opportunity in 2019 to consult afresh with users on runway needs. For remuneration of the *Additional Line-up Points* to occur by end of 2019 the trigger event must have occurred and the capital expenditure been incurred. Should DAA envisage the trigger event for *T2 HBS Standard 3* or pier 2 segregation occurring soon after 2019, we would expect to look favourably on making an allowance in the opening RAB for expenditure prior to that date incurred in anticipation of the new security or safety needs (subject to the sum being consistent with the allowances we have

made for the projects).

Reconciling the 2015-2019 Capital Expenditure in 2019

7.73 In 2019 the reconciliation will be done at the group level. There is flexibility within groups but not between groups. This is consistent with the approach taken for the reconciliation of the 2010-2014 capex and the approach suggested by DAA during the user consultations on the 2014 CIP.

7.74 The 2015-2019 capital allowance is a substantial, with a large degree of flexibility. DAA should exercise restraint in spending this allowance to ensure the interests of users are best served. If DAA envisages going over allowance on a particular group it should consult with users. If users agree to that overspend than in 2019 when reconciling spending we would increase the allowance by the amount of the consultation. For a consultation to result in an increased allowance it must have unanimous support of users.

7.75 In its response to our Draft Determination DAA added 3 new projects to the CIP and updated the scale of 2 existing projects. These additions were not part of the consultation meetings held with airlines in early 2014, neither were they part of the Final CIP which all users had an opportunity to comment on in their responses to our Draft Determination. We have only allowed one of the new projects as it involves the replacement of end of life security equipment (€3m). We have not allowed the other two projects. We are aware that capital planning for the period of a determination can be difficult but as with all projects which are conceived after the Final CIP DAA has two options, it can use the flexibility within the groups to direct spending to these projects or it can hold interim consultations with users who might agree to an increase in the overall allowance.

7.76 We are applying special treatment to the reconciliation of the two T1 refurbishment projects, T1 Arrivals and T1 Façade. To retain the allowance for these projects DAA must either:

- Complete the projects by end 2015; or
- Complete the project by end 2019 and have levied a passenger service charge on terminal 1 users that is at least €1 less than the passenger service charge levied on terminal 2 users for at least one year prior to completion of the project.

If one of these two conditions is not met then the allowance for *Business Development* will be reduced by €10m. In that scenario DAA could still deliver the projects using flexibility within the group.

7.77 When reconciling the trigger projects we will use a 50/50 mechanism to share the risk of over or under-spends between DAA and the users. This is consistent with how we have treated the T2 overspend. If DAA spend under the allowance they will retain 50% of the underspend while 50% will be clawed back. If DAA overspend 50% of the overspend will be passed on to users. There will be no retrospective adjustment for extra return on capital foregone or earned because of the deviation from the allowance

during the period of the Determination.

Return on Capital (Cost of Capital)

7.78 We have not changed our approach to calculating the cost of capital since the Draft Determination. We adjusted the ranges for some of the parameters but our point estimate remains at 5.8%.

Representations Received on Return on Capital

7.79 DAA drew attention to the fact that the proposed weighted average cost of capital (WACC) in the 2014 Draft Determination was 120 basis points lower than the allowed WACC in the 2009 Determination. DAA and its consultants NERA commented on every component of the WACC, but DAA's main point of dispute was the risk free rate.

7.80 DAA argued that the risk free rate in the Draft Determination was too low because it incorrectly omitted a country risk premium, claiming "the risk free rate for Ireland is likely to be different to that of the United Kingdom". DAA sought to criticise CAR's rejection of the country risk premium in the Draft Determination on three grounds. The first of these was that we had made an "incomplete and erratic" review of academic theory. The second was that our review of regulatory precedent on the risk free rate and country risk premia had been "incomplete" and "misleading". The third was that empirical evidence (namely forward spreads on government bond yields) supported the inclusion of a country-risk premium. DAA contended that the minimum plausible value for the risk free rate including a country risk premium was 2%, although a higher value was preferred. DAA also advocated for including "headroom" in the risk free rate "given inherent market volatility".

7.81 DAA argued that the asset beta we suggested for Dublin Airport was implausibly close to Heathrow's and Gatwick's. DAA highlighted that the lower end of the asset beta range we had suggested for Dublin (0.5) was equal to the point estimate used by the CAA for Heathrow. DAA also made two additional arguments around the asset beta which both related to decisions from other regulators. DAA claimed that the CAA had recently increased its estimated asset betas for Heathrow and Gatwick airport, and that this made CAR's decision to reduce DAA's by 0.01 untenable. DAA also claimed that the lower bound for the asset beta should not be less than asset betas recently determined for mobile telecommunications companies, which were 0.54 and 0.6.

7.82 DAA acknowledged that the equity risk premium proposed in the Draft Determination was consistent with those decided by other regulators.

7.83 DAA again advocated for splitting the cost of debt between new and embedded debt. DAA estimated that the split cost of debt would be 3.09%. DAA argued that as this only implied a difference of 9 basis points with the Draft Determination, now was an opportune moment to make the transition.

7.84 DAA suggested that its notional gearing should be lowered. It contended that the only evidence we had provided in support of the figure was that it

was similar to the CAA's final estimates for Heathrow and Gatwick. DAA's consultants, NERA, stated that targeting a gearing of 50% may risk DAA's ability to remain financeable.

- 7.85 Aer Lingus drew attention to the fact that the Draft Determination placed several of the point estimates for the WACC parameters at the top of their proposed ranges. Aer Lingus saw this as incorrect and drew a contrast with the CAA's decision to place Heathrow airport's WACC in the 79th percentile of its estimated range.
- 7.86 Aer Lingus acknowledged that the estimate we had made of the equity risk premium was consistent with decisions taken by other regulators.
- 7.87 Aer Lingus expressed reservations about the methodology and results of our exercise to calculate the asset betas of other regulated airports, although it did not present this as an argument for lowering the asset beta.
- 7.88 Aer Lingus argued that the cost of debt should be substantially lower than the 3% proposed in the Draft Determination because current market conditions pointed to lower rates. The airline stated that "there is case for taking a time series view on the cost of debt" but claimed current yields on investment-grade bonds in Ireland and Europe as well as "the past five years of historic data" supported a figure well below 3%.
- 7.89 Aer Lingus' response to CP2/2013 described its view on calculating the cost of debt with reference to historic debt as "open minded", but in its response to our Draft Determination, the airline focussed only on calculating the cost of new debt.
- 7.90 Ryanair also challenged the decision to place the point estimates of several WACC components at the top end of their estimated ranges. Ryanair's consultants RBB pointed out that the gap between the point estimate and the bottom end of the range for the WACC had widened since the 2009 Determination.
- 7.91 Ryanair considered that the WACC we had proposed for Dublin Airport did not seem low enough when compared with Heathrow's and Gatwick's as determined by the CAA. Ryanair claimed that Dublin's level of risk is "similar to Heathrow given their respective monopoly positions".
- 7.92 Ryanair considered that it would be appropriate to place the real cost of debt in the range of 1% to 2%, citing current yields on BBB corporate bonds. RBB highlighted that the BBB-rated bonds analysed in the Draft Determination had fallen more than 110 basis points since the 2009 Determination, where the allowed cost of debt was 4.1%.
- 7.93 IATA also drew attention to the fact that several WACC parameters had been placed at the top end of their estimated ranges in the Draft Determination.
- 7.94 IATA considered that the comparative analysis of other airports' and utilities' asset betas supported an asset beta for Dublin Airport of 0.5.
- 7.95 IATA also drew attention to current market conditions, pointing out that

yields on government bonds had declined substantially since 2009. IATA argued that the cost of debt should be set at the lower end of the range proposed in the Draft Determination (2.5%).

- 7.96 IATA called for a raising of the notional gearing to 60% on the basis that Heathrow's had been set at that level by the CAA.
- 7.97 The IAA stated that by reducing the WACC from its 2009 level, CAR was "further reducing the monies available to fund enhancement in safety and efficiency".
- 7.98 The IAA also argued that the decision on the risk free rate was out of line with recent regulatory precedent, citing Comreg's decision in April of this year to allow a risk free rate of 2.3%.
- 7.99 Lufthansa Swiss considered that "favourable conditions at the capital markets" meant that the WACC could be set at a lower rate than that proposed in the Draft Determination.

Decision on Return on Capital

- 7.100 We have allowed a real rate of return of 5.8% on sums included in the RAB for the purposes of making this Determination. This is the same rate as proposed in the Draft Determination. It is our estimate of an appropriate real, pre-tax cost of capital.
- 7.101 We estimate the cost of capital using the same approach as in the Draft Determination, i.e. the weighted average cost of capital (WACC) using the capital asset pricing model (CAPM) to estimate the cost of equity. This approach is consistent with the approach we have taken for previous airport charges determinations and determinations setting a cap on aviation terminal service charges. In the responses to the Draft Determination, we did not receive any requests to vary this CAPM-based approach.
- 7.102 In making our final decision on the WACC, we have considered all representations received as well as events which have transpired since the publication of the Draft Determination. These events include the CER's publication of a consultation paper on the cost of capital for Irish Water, and Ryanair's €850m bond issue on 10th June. These representations and events have led us to revise the top end of our estimated range for the risk free rate upwards and revise the bottom end of our range for the cost of debt downwards. But on balance we have not been convinced that our point estimates for the WACC and its constituent parameters should differ from those proposed in the Draft Determination.
- 7.103 At 5.8%, Dublin Airport's WACC stands 10 basis points above the WACC chosen by the CAA for Gatwick airport in February 2014. In our view it would be counterintuitive for Dublin Airport's WACC to be lower than Gatwick's, given the business risk and financial risk faced by each airport.

Table 7.5: WACCs of Dublin, Gatwick and Heathrow

Airport	Real pre-tax WACC
Dublin	5.8%
Gatwick	5.7%
Heathrow	5.35%

Source: CAA February 2014, CAR¹²

7.104 Although we accept that the top end of the range of plausible values for the risk-free rate could be higher than that proposed in our Draft Determination and the bottom end of the range of plausible values for the cost of debt could be lower, we also consider that the point estimates we proposed in the Draft Determination are still appropriate. Those point estimates are consistent with the idea that Dublin Airport currently has to offer a return on its debt that is substantially greater than the risk free rate; moving the risk-free rate up or the cost of debt down would erode that premium. We are also not convinced that Dublin Airport's allowed cost of debt should be any lower than 3.0% as this would imply it is substantially less than Gatwick's (3.11%) as determined by the CAA.

Table 7.6: WACC Parameter Ranges

Parameter	Draft Determination range	Final Determination range	Point estimate (Draft and Final Determinations)
Risk free rate	0.0% - 1.5%	0.0% - 2.0%	1.5%
Equity risk premium	4.5% - 5.0%	4.5% - 5.0%	5%
Asset beta	0.5 - 0.6	0.5 - 0.6	0.6
Cost of debt	2.5% - 3.0%	2.0% - 3.0%	3.0%
Gearing	50% - 60%	40% - 60%	50%
WACC	3.8% - 5.9%	3.8% - 5.9%	5.8%

7.105 In addition to altering our ranges for the risk free rate and the cost of debt, we have widened our range of values for the notional gearing of Dublin Airport. We emphasise that DAA retains responsibility for its actual capital structure, but we consider that an efficient Dublin Airport might finance itself through the next regulatory period with anywhere between 40% and 60% debt. We have not found any convincing reason to overturn our point estimate of notional gearing of 50% in the Draft Determination.

7.106 The rest of this section provides additional detail on our decision in relation to each of the component parameters of the WACC.

Risk Free Rate

7.107 In the Draft Determination we cited current yields on German government bonds as an indicator of the risk free rate. Those yields remain close to 0% in real terms. Since our publication of the Draft Determination, Ryanair has successfully auctioned €850m of bonds with a nominal coupon of 1.875%.¹³ This represents a real return of close to 0%. In light of this,

¹² CAA, Estimating the cost of capital: technical appendix for the economic regulation of Heathrow and Gatwick from April 2014: Notices granting the licences, February 2014

¹³ Reuters, "Ryanair says debut bond issue to cut financing costs", 10 June 2014

none of the representations we have received have convinced us that the lower bound on our estimate of the risk free rate should not be as low as 0%.

- 7.108 DAA has argued that the risk free rate including a country risk premium for Ireland should be at least 2%, citing several regulatory decisions which they saw as supportive of this position. However our reading of the decisions by CER in January 2014 and by Comreg in April 2014 is that they do not include a country risk premium, "implicit" or otherwise. We have also taken into account the CER's consultation paper on Irish Water's cost of capital, which was published shortly after the Draft Determination. This paper also did not include a country risk premium. It placed the risk free rate at 2.0%. We consider that this result and the method used to arrive at it was reasonable and therefore we have decided to increase the top of our range for the risk-free rate to 2%.
- 7.109 Ultimately, we have left our point estimate of the risk-free rate at 1.5%. The market evidence continues to suggest a lower value might be appropriate; there are regulatory precedents that could be cited to warrant a risk-free rate as high as 2%. On balance, we think that a value of 1.5%, when combined with our proposed equity risk premium of 5%, is appropriate. It implies a total market return of 6.5%, consistent with the total market return we assumed in our 2011 Determination governing the IAA's aviation terminal service charges.

Equity Risk Premium

- 7.110 We did not receive any representations stating that the 5.0% equity risk premium proposed in the Draft Determination was not appropriate. Aer Lingus and NERA (on behalf of DAA) both acknowledged that this decision was consistent with those taken by other regulators.

Asset Beta

- 7.111 The point estimate we have chosen for Dublin Airport's asset beta is higher than Heathrow's and Gatwick's as estimated by the CAA. The bottom and top end of the ranges we have chosen for Dublin's asset beta are both higher than their counterparts at Heathrow and Gatwick, although there is some overlap in the ranges. We regard this as consistent with the intuitive notion that Dublin faces slightly more business risk than those airports – we believe that Ryanair has overstated its case in claiming Dublin faces similar risks to Heathrow.
- 7.112 DAA cited regulatory precedents to support its argument that the point estimate and range of the asset beta should be higher. We have rejected DAA's claim that the range of beta for Dublin Airport cannot be any lower than point estimates used for mobile telecommunications companies; it is not at all obvious that those companies do not face more risk than Dublin Airport given that they exist in an industry characterised by rapid technological change. We also believe that DAA has misconstrued the recent decisions on Heathrow's and Gatwick's asset betas. The CAA has itself rejected suggestions that it has revised its point estimates of those

asset betas upwards.¹⁴

7.113 Aer Lingus expressed reservations with our method for calculating asset betas of regulated airports in the Draft Determination. In Aer Lingus' view, it was inappropriate not to use national stock market indices instead of a global index as a basis for measuring correlation with returns from airports. We have since tested the effect of substituting national indices for our global index and found that the estimated asset betas move on average by less than 0.01.

Cost of Debt

7.114 We stated in the Draft Determination that we were willing to consider an approach that places some weight on the historic cost of debt in future Determinations, but that for this Determination we had decided to continue with just focussing on the cost of new debt. We note that Aer Lingus' response to our 2013 issues paper described their view on methods for estimating the cost of debt as "open minded", but in response to our Draft Determination, the airline focussed only on calculating the cost of debt within the same approach we had adopted previously. We have not based our final decision on the cost of historic debt, but we note that according to DAA the difference between the two approaches at present would be just 9 basis points.

7.115 IATA, Ryanair and Aer Lingus all drew attention to current conditions in the market for government or corporate bonds when arguing for a lower cost of debt. Aer Lingus argued that the allowed cost of debt should be "well below 3%", while Ryanair suggested a range of 1% to 2% and IATA suggested the cost of debt should be set at the lower end of the range we suggested in the Draft Determination (2.5%).

7.116 In addition to these representations, we have taken into account Ryanair's bond issue, which compared with current inflation expectations appears to represent a prospective real rate of return of close to 0%.

7.117 In light of these arguments and events we have decided to revise down the lower bound of our range for the cost of debt to 2%. The lower limit of this range now coincides with the upper limit of our range on the risk free rate. However we have not been convinced that the point estimate for the cost of debt in the Draft Determination, 3%, was inappropriate. This is already below the level the CAA recently allowed for Gatwick, and given the reduction in the price cap we are imposing on DAA, we consider it prudent to include some headroom in our estimate to ensure lender confidence.

Gearing

7.118 We have continued to assume a point estimate of 50% for gearing. None of the representations received have persuaded us that such a gearing ratio is inconsistent with an efficient capital structure for Dublin Airport.

¹⁴ See paragraph 6.44, CAA February 2014, and paragraph 6.42, CAA January 2014.

- 7.119 We accept that reasonable arguments can and have been made for different capital structures. A cost of capital based on a notional gearing anywhere between 40% and 60% would seem to be consistent with enabling DAA to operate and develop the airport in a sustainable and financially viable manner.
- 7.120 The actual level of gearing DAA ultimately chooses to adopt is a matter for it to decide. We do not propose to allow DAA a higher cost of capital based on such choices, since that would fail to protect the interests of current and prospective users.

Tax

- 7.121 For the purposes of calculating the WACC in this Determination we have assumed a tax rate of 12.5%, which is the same as the main rate of corporate tax in Ireland. None of the representations we received presented any objection to this rate.

Return of Capital (Depreciation)

- 7.122 We retain the approach to depreciation used in the Draft Determination.
- 7.123 Differences in the base-line depreciation are due to different amounts entering the RAB as discussed earlier in this section.
- 7.124 In the Draft Determination we brought forward €93m of depreciation in order to generate a smoother price path. We indicated that for the Final Determination the level of accelerated depreciation would be adjusted to preserve a smooth price path. We now accelerate €84m of depreciation to generate the smooth price path of CPI-4.2%.

Representations Received on Return of Capital

- 7.125 DAA claimed that the accelerated depreciation shows the price cap would be financially unviable without it. It also claims that bringing forward depreciation reduces the value of the enterprise by reducing the RAB.
- 7.126 DAA claimed that there is an error in how we calculated annuities, comparing calculations to the 2009 Determination.
- 7.127 Aer Lingus did not agree with our rationale for accelerating depreciation. It stated that it was inconsistent with regulatory precedent which usually aims for a smooth price within a price control period and not between. Aer Lingus would prefer a large P_0 adjustment to bring the 2015 price in line with the building blocks prior to the adjustment.
- 7.128 IATA does not see the need for the accelerated depreciation. It claims that larger reductions in the first year would more accurately reflect the current economic circumstances.
- 7.129 Ryanair disagreed with the need for accelerating depreciation to generate a smooth price path. Referencing our claim in the Draft Determination that using 2013 outturns for opex and commercial revenue would see the price in 2015 fall by €1.21, it stated that the opening price in 2015 should rectify this. It states that users have been overpaying in the current period

and that the benefit of the cost savings realised by DAA should now be returned to users.

7.130 Ryanair claim that the higher than necessary prices in the early years of the Determination will hamper traffic growth and cause damage to consumers, airport users, DAA and the Irish Economy.

7.131 Ryanair also claimed that our approach to price smoothing is inconsistent with previous decisions; stating that during the last Determination there was a 21% price increase without any re-profiling.

Decision on Return of Capital

7.132 Despite representations received we continue to smooth the price by way of accelerated €84m of depreciation. The annual adjustments are detailed in Table 7.7. This approach is not for financial viability reasons, rather it gives parties price stability moving from one determination to the next. The financial viability claims are discussed in more detail in Section 8.

Table 7.7: Deriving the Return of Capital Allowed (€m)

	2015	2016	2017	2018	2019
Base-line depreciation	54.1	61.7	67.6	73.9	82.5
Adjustment	28.4	20.1	18.5	12.6	4.6
Final depreciation	82.5	81.8	86.1	86.5	87.1

7.133 As in the Draft Determination depreciation and return on capital for investments in the period 2015-2019 are calculated using annuities. All other depreciation profiles retain the approach of the draft.

7.134 Appendix 6 deals with DAA's claim that there is an error in how we calculate annuities.

8. Financial Viability

- 8.1 In the Draft Determination, we stated our view that the price cap we were proposing was consistent with our statutory objective to enable the financial viability of Dublin airport. We have not been persuaded by any of the responses we received to the Draft Determination that this view was mistaken.
- 8.2 Our approach to assessing the financial viability of the airport in the Draft Determination has been subject to some refinements for the Final Determination. It is still substantively the same approach we have used for all previous determinations since the 2004 State Airports Act, with one notable change: we have sought to assess our enabling of the financial viability of the regulated entity only, not DAA group as a whole. In this section we describe how we have done that.
- 8.3 The supporting financial analysis we provide builds on the work we did in the Draft Determination. We have made changes to building blocks of the price cap, which have consequential implications for our assessment of financial viability. Second, we have also considered further arguments about what level of debt and dividend payments to assume for the purposes of assessing financial viability. We find that for most financial ratios, including the FFO: debt ratio that we have traditionally focussed on, the choice does not matter. In assessing these points, we have been mindful of the Ministerial Direction that DAA operate without recourse to exchequer funding and the government policy on dividends from DAA.

Representations Received on Financial Viability

- 8.4 DAA disagreed with our conclusion that the terms of the Draft Determination were sufficient to enable the financial viability of the airport. It stated several objections to our methods and conclusion.
- 8.5 DAA considered that the Draft Determination did not provide sufficient remuneration for shareholders, partly due to what DAA saw as flaws in our calculation of the total value of equity in the airport.
- 8.6 DAA presented its own calculation of the total value of equity in Dublin airport, which resulted in a higher value than our notional equity calculation. By DAA's calculations the total equity figure for the airport should be €250m higher than we indicated in the Draft Determination. DAA therefore considered that we were not actually enabling the return on equity or the return on capital quoted in the Draft Determination.
- 8.7 DAA arrived at this higher equity figure by combining the opening RAB with additional items we had not included. One of these additional items was capital spend on T2 that had been disallowed from the RAB (€103.4m) or had its entry into the RAB postponed (€152.0m). Another of the items was €62m of expenditure on voluntary severance payments incurred by DAA in order to bring the cost base to its current level. The final item was an amount associated with settling the IASS pension scheme deficit dispute.
- 8.8 DAA also argued that its actual return on capital and return on equity

would be lower than we had forecast partly because DAA saw our calculations of the building blocks as “unachievable”. DAA contended that a moderate exogenous demand shock would almost entirely erode the return on capital it expected to receive.

- 8.9 DAA also criticised the Draft Determination on the basis that it did not offer shareholders the prospect of the regulated entity’s enterprise value increasing over the upcoming regulatory period, calculating that the RAB would decrease by 7.0%, due to depreciation (including re-profiled depreciation) exceeding allowed capital expenditure. In addition DAA claimed that the enterprise value of the airport would be eroded because the proposed WACC was too low.
- 8.10 DAA criticised our proposal in the Draft Determination to achieve a smooth decline in the price cap by bringing forward depreciation from outside the upcoming regulatory period. In DAA’s view, this re-profiling stood as evidence that we were making “a regulatory decision that is not financeable” and “not sustainable in the long term”.
- 8.11 DAA objected to our calculation of the regulated entity’s FFO:debt ratio. DAA highlighted differences between our approach and what DAA anticipated Standard and Poor’s (S&P) approach would be to calculating this ratio; DAA considered it wrong for us to diverge from the latter approach.
- 8.12 For the calculation of Funds From Operations (FFO), DAA considered that the interest subtracted from forecast EBITDA should be equal to debt multiplied by 6.9%, i.e. the nominal rate of interest on loans financing Dublin Airport, not the real cost of debt as estimated by us.
- 8.13 For the calculation of debt, DAA considered it incorrect to set opening debt equal to the RAB multiplied by the regulated entity’s notional gearing. DAA argued this should instead be based on the audited regulated accounts with reference to cash flows brought forward over the years. DAA also argued that debt should include an additional €60m for its proposed pension settlement.
- 8.14 DAA stated that we had not taken S&P’s comparative ratings analysis modifier into account when assessing the regulated entity’s hypothetical credit rating.
- 8.15 DAA considered the provisions of the Draft Determination inadequate for enabling the regulated entity to achieve a BBB credit rating. In making this assessment DAA referred to a risk modelling exercise conducted by DAA’s consultants, NERA. This exercise involved stochastically simulating the financial performance of the airport under a range of scenarios. The estimated probabilities of these scenarios are driven by assumptions NERA and DAA have made about the likelihood of various model inputs taking various values. The model inputs include exogenous factors, such as GDP, as well as factors endogenous to the management of DAA, such as its operating expenditure.
- 8.16 Both in this model and in the text of its response, DAA makes clear that it assumes there is a significant chance it will not be able to achieve the level

of performance described by the building blocks in the Draft Determination.

- 8.17 DAA also claimed that our proposals, if taken forward into the Final Determination, would be seen by credit ratings agencies as an adverse development in our regulatory approach. This perception could prompt S&P to adjust DAA's "Business Risk Profile" and consequently lower its credit rating.
- 8.18 DAA argued that it was wrong for us to take a forecast BBB credit rating as our main indication that the airport's financial viability had been sufficiently enabled. Instead, DAA considered that we should target a credit rating for the regulated entity of BBB+. DAA claimed that at a credit rating of BBB, lenders would impose financial covenants on the airport. In addition, DAA considered that a BBB-rated bond would be "considered significantly more volatile than a BBB+ rated bond... given the disproportionate impact of a further downgrade." DAA considered the historical downgrade of its debt as another reason for the BBB rating being insufficient. DAA considered that a BBB+ rating should be the minimum target credit rating to support its future financing requirements when the revolving credit facility expires and the Eurobond matures. DAA suggested that market conditions meant that such finance might not be secured without a BBB+ rating at that time. DAA also considered that a rating of BBB+ was in line with the ratings of comparator airports, was necessary in order to convince investors to take on volume risk, and was needed by DAA as a buffer against shocks.
- 8.19 ACI contended that the assumptions underlying our treatment of DAA's business plan (including our assumptions on the costs of compliance with legislation) were incorrect, and this undermined the credibility of the FFO:debt forecasts.
- 8.20 The trade unions at Dublin airport considered that the price cap we had proposed in the Draft Determination might have a negative impact on the ability of the airport to borrow and/or refinance. The unions stated that the price cap would "considerably reduce... the capital value of the airport over the Determination period, any return to shareholders, balance sheet stability and future sustainability."
- 8.21 The trade unions also considered that we should include an allowance for the full liability of the IASS pension scheme because we have a statutory obligation to give due regard to costs or liabilities for which DAA is liable.

Decision on Financial Viability

- 8.22 This is the fourth time we have made a Determination on airport charges since the enactment of the 2004 State Airports Act, which requires us to enable DAA to operate the airport in a sustainable and financially viable manner. In 2004, we undertook a specific public consultation exercise on the issue of the amended statutory framework as mandated by the Act.¹⁵

¹⁵ See CP7/2004 and CP9/2004

- 8.23 The only substantive change we are making to our approach for this Determination is to depart from our previous practice of considering the financial viability of DAA group, and instead focus on the financial viability of the regulated entity, Dublin Airport. We signalled in our 2013 Issues Paper that we were considering making this change in our approach and both IATA and DAA indicated that they were in favour of such a change. In the Draft Determination we confirmed our intention to take this approach, and none of the responses we received to the Draft Determination called for us to abandon it.
- 8.24 In other respects our approach to interpreting the Act and pursuing the statutory objective for financial viability has not changed. This means that we continue to believe that we would satisfy our statutory objectives if we made a determination that would allow the regulated entity to achieve an investment grade credit rating. We also continue to believe that we must have regard to all three of our statutory objectives simultaneously when making a determination – the objective of enabling financial viability does not trump the objective to protect the reasonable interests of users, or the objective to facilitate the efficient and economic development of the airport.
- 8.25 In the Draft Determination, we observed that the switch in focus from DAA Group's finances to the airport's finances would entail a change in our approach to estimating key financial metrics. For example, our calculation of the FFO:debt ratio would no longer depend on estimates of the FFO and debt the corporate group DAA belongs to.
- 8.26 One of DAA's objections to our methods for calculating financial ratios was that what we had done was not consistent with the calculations S&P would perform when creating a credit rating. We emphasise that our calculations will necessarily have to diverge from S&P's if we are going to assess the financial viability of the regulated entity only: the rating S&P produces is for DAA Group, which is no longer the focus of our assessment.

Target Credit Rating

- 8.27 Our analysis has continued to focus on what might be needed for a Dublin Airport entity to realise a BBB rating. The sufficiency of a BBB versus a BBB+ rating was discussed at length in the 2005 Determination. One of our findings in that Determination was that DAA had significantly underestimated the liquidity and depth of international debt markets for financing investment grade debt (i.e. debt with an S&P rating of BBB- or better). We also found that the cost of debt does not increase very significantly from one credit rating to the next until the transition is made from the lowest investment-grade rating, i.e. BBB-, to the highest non-investment-grade rating, i.e. BB. Therefore there is already some margin for exogenous shocks built in to our view of the BBB rating as a rating that is consistent with financial viability.
- 8.28 Recent evidence confirms the viability of the BBB rating: in April 2014, Sydney Airport issued a €700m Eurobond with an S&P rating of BBB and a nominal yield of 2.8%. In the aviation sector, Ryanair and Lufthansa have also successfully auctioned bonds at low yields with S&P credit ratings one notch above and one notch below BBB respectively (see Table 8.1).

Table 8.1: Euro-Denominated Bonds Issued Recently - Aviation Sector

Issuer	S&P rating	Other ratings	Amount	Maturity	Date of auction	Nominal Yield
Sydney airport	BBB	Baa2 (Moody's)	€700m	10 years	Apr 2014	2.768%
Ryanair	BBB+	BBB+ (Fitch)	€850m	7 years	Jun 2014	1.875%
Lufthansa	BBB-	Ba1 (Moody's)	€500m	5 years	Sep 2014	1.125%

Sources: Reuters, *Sydney Airport prices 700 mln euro 2024 bond*, www.reuters.com, 10/4/2014
The Daily Telegraph, *Ryanair's debut bond issue soars*, www.telegraph.co.uk, 10/7/2014
The Financial Times, *Demand for corporate credit takes off with Lufthansa Bond*, www.ft.com, 7/9/2014

- 8.29 In light of this evidence we have rejected DAA's arguments for targeting a credit rating of BBB+. We also disagree with DAA's assessment of the likelihood of a downgrade, since our own financial modelling and sensitivity analysis has indicated that FFO:debt ratios will remain above 13%.
- 8.30 DAA suggested that the Draft Determination represented an adverse change in our regulatory approach, and this in itself put the credit rating of the group at risk. We have rejected this representation, since the only change in our approach to assessing financial viability – i.e., the switch in focus to the regulated entity – is a change that DAA itself called for.
- 8.31 We also continue to distinguish between enabling DAA to operate Dublin Airport in a sustainable and financially viable manner, and enabling DAA to operate without constraint. DAA has expressed concerns that it may have to source funds from banks that insist on covenants or rating triggers, giving it less financial flexibility and headroom. As we have stated in past determinations, we do not believe that our third statutory objective requires us to avoid such an outcome. It may even be that such an outcome helps realise our other statutory objectives if it results in investors scrutinising DAA's plans more closely for evidence that DAA plans to develop the airport in an economic and efficient manner and is not making investments for which there might not be in demand from current or prospective users.

Updating the Building Blocks

- 8.32 When we calculate the entity's financial ratios we assume that it behaves efficiently, meeting the forecasts we use as building blocks in the price cap. We must assume that the regulated entity will perform efficiently, because otherwise our efforts to facilitate the efficient development of the airport and protect the reasonable interests of users would be undermined by making allowances for the actual entity's inefficiencies and failures to meet reasonable targets. The assumption is consistent with our statutory objective to enable, not ensure, the financial viability of the airport.
- 8.33 Such an approach has regulatory precedent. For example, it accords with the work on financial viability undertaken by the UK Competition and Markets Authority (CMA) in its Price Determination for Northern Ireland Electricity. The UK CMA also focussed on assessing the financial ratios of a hypothetical standalone efficient firm that performs according to the

building blocks of the price cap.¹⁶

- 8.34 The changes we have made to the various building blocks (passenger numbers, costs and commercial revenues) do not significantly alter the financial ratios as estimated at the time of the Draft Determination. The table below re-estimates the financial ratios reported for a Dublin Airport entity in Table 7.2 of that report. Those estimates assumed an opening debt consistent with the notional gearing assumed in the cost of capital calculations and the opening RAB. It also assumed no dividend payments, depreciation charges according to regulatory depreciation, no one-off exceptional charges, and tax paid on estimated profits of 12.5%. Interest payments correspond to the level of net debt.

Table 8.2: Updated Financial Ratios for a Dublin Airport Only Entity

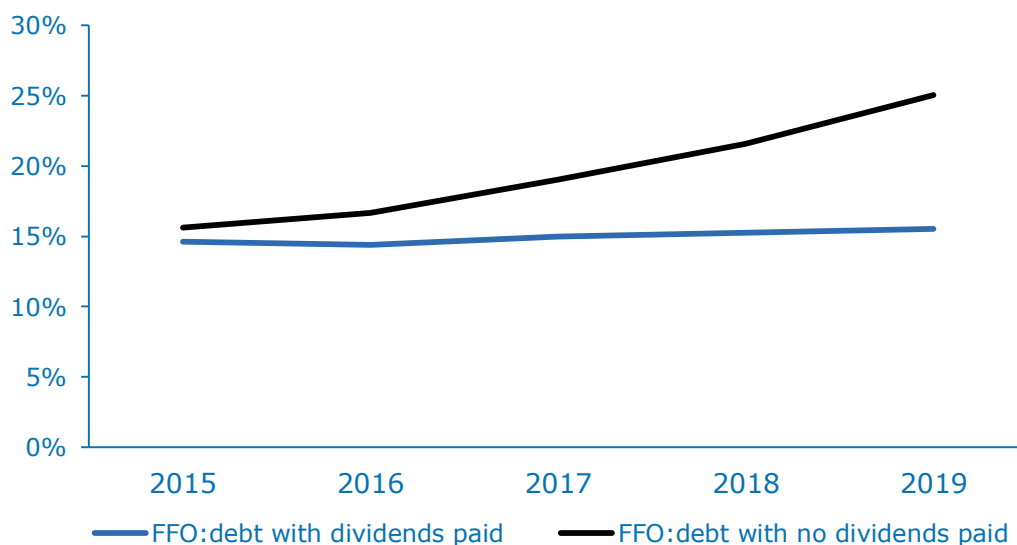
	2015	2016	2017	2018	2019	Target
FFO: net debt (%)	19	21	25	30	37	>13
Debt: EBITDA (x)	4	4	3	3	2	<4
FFO: cash interest	6	7	7	8	10	>3
EBITDA: interest	7	8	9	10	12	>4

- 8.35 For all four ratios, the baseline scenario looks healthy.

Actual versus Notional Debt

- 8.36 DAA argued that we should have regard to the actual debt of Dublin Airport rather than some notional level of debt. We find that for most of the financial ratios we estimate, the choice of whether to use actual or notional debt does not alter the fact that the entity could achieve outcomes consistent with at least an intermediate financial risk.
- 8.37 This finding extends to the FFO: debt ratio, the indicator we have traditionally placed most weight on when assessing financial viability. Chart 8.1 shows the results of our modelling of the FFO:debt ratio in two scenarios. In one scenario, the regulated entity uses the entirety of its net cash flow to pay down debt, and the FFO:debt ratio grows from 16% to 28% by the end of the regulatory period. In the other scenario, the entity always pays dividends exactly equal to the cost of equity we estimated for the airport, and the FFO:debt ratio stays roughly constant at 14%-16%.

¹⁶ See paragraph 17-2 of the UK CMA's *Northern Ireland Electricity Limited price determination*, 26/3/2014

Chart 8.1: FFO:Debt Ratio Assuming Debt from 2013 Regulated Accounts

8.38 For actual debt, we have used the closing debt reported in the 2013 regulatory accounts. This probably overstates what the opening debt will be in 2015, since in recent years the regulated accounts have shown debt falling year on year. Associated with this declining debt, the various financial ratios that could be estimated from the regulatory accounts have improved in recent years. This includes the Debt: EBITDA ratio, which we estimate may continue to look weak for a number of years after 2015. We return to this point later in the section.

Returns to Equity

8.39 In addition to arguing for a change to the opening debt of the entity in our model, DAA argued that we should model dividend payments. We had excluded these from our model, treating dividend payments as a discretionary item each year; enabling DAA to operate and develop the airport did not require it make a dividend payment annually. DAA objected to the absence of the dividend and the fact that the gearing of the company changes if net cash flow is spent on paying down debt.

8.40 DAA also made a number of arguments that in effect even allowing for this level of dividend would not enable its financial viability, because we had understated total equity in the regulated entity. We have rejected these representations.

8.41 The overall level of equity we estimate for the purpose of our financial analysis must be equal to the RAB minus debt. If the sum of equity and debt we used for the purposes of this analysis exceeded the RAB, we would be allowing a return on more than the RAB. This would undermine the incentivising properties of the RAB-based approach to capital remuneration, which we use to protect the reasonable interests of users and facilitate the economic and efficient use of the airport.

8.42 DAA cited the exclusion of T2 overspend and T2 Box 2 from the RAB as examples of us understating equity in the regulated entity. We have now allowed part of the T2 overspend to enter the RAB. Our rationale for

continuing to exclude a portion of that overspend, and our rationale for continuing to postpone the inclusion of T2 Box 2, is given in Section 7.

8.43 DAA also claimed that we had understated equity by failing to add to the RAB an amount equal to the voluntary severance costs DAA incurred in order to bring its cost base to its current level. We have rejected this representation. There is no compelling reason to distinguish between voluntary severance costs and other actions DAA took in the last five years that had the overall effect of beating the opex target set in the 2009 Determination.

8.44 We have considered whether allowing for dividend payments affects our conclusions about financial viability. As a starting point, we assumed dividend payments that correspond to the following formula:

$$\text{Dividend} = (\text{RAB} - \text{Debt}) * \text{Cost of equity}$$

8.45 This assumed dividend allowed in the calculations would represent a substantial annual dividend of over €50m per annum.

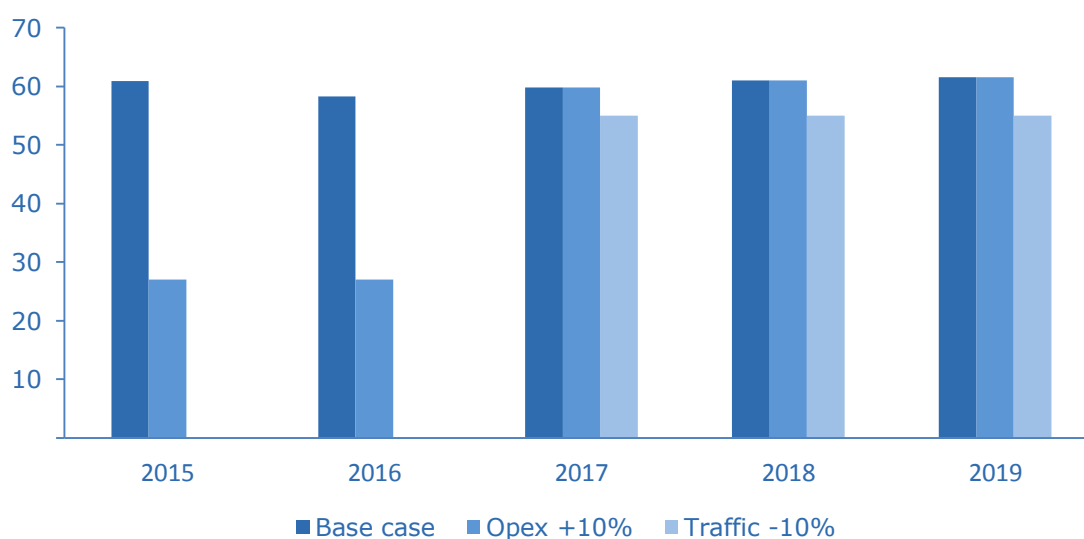
8.46 Even allowing for such a dividend payment, we calculate that most of the financial ratios would continue to achieve outcomes consistent with at least an intermediate financial risk. This conclusion even holds when the estimates have reference to actual debt as recorded in the regulatory accounts rather than notional debt. As Chart 8.1 above showed, the FFO: Debt ratio remains around 15% for the duration of the Determination if we allowed such a dividend and accepted DAA's representation that we should have regard to the debt reported in regulatory accounts.

8.47 DAA highlighted the fact that the risk of volume shocks means its actual return on equity could be lower than the allowed cost of equity, but it is of course also true that greater-than-forecast passenger growth could result in shareholders receiving more than the 8.6% real rate of equity return we have allowed in the WACC. This is a risk equity holders take and is reflected in the cost of capital.

8.48 We have also rejected DAA's representation that our Determination should provide for growth in the enterprise value of the airport over the upcoming regulatory period. Restated, DAA's argument appears to be that the RAB should always increase between determinations. We do not accept that this should automatically occur. It would not be protecting the interests of current and prospective users if we always increased the RAB. Instead, we will consider what investments are needed to facilitate the efficient and economic development of the airport and make allowances for investments accordingly. We will also ensure that DAA is able to recover the costs of past investments, via allowing a return of capital. Where the latter sum exceeds capital expenditure in the forthcoming period, the RAB will decline. Given the lumpy nature of investment at airports such as Dublin, it is perhaps not surprising that the RAB will increase when a large investment is required (e.g. a new terminal or runway), but decline slightly during periods when such large investments are not necessary.

Risk Sensitivity Analysis

- 8.49 In the Draft Determination we tested the impact of several opex and traffic outturn scenarios on FFO:debt. DAA submitted its own risk analysis model to support its claim that our Draft Determination was not consistent with the regulated entity achieving a BBB rating. Since the Draft Determination, we have changed some of the building blocks. Moreover, we have considered revised starting assumptions when estimating the FFO: debt ratio, using actual debt and allowing for dividend payments. In these circumstances, we are satisfied that the type of risk sensitivity we conducted in the Draft Determination remains appropriate.
- 8.50 The Draft Determination identified two particular risks that could adversely affect DAA's financial position: lower than expected traffic or operating costs higher than expected. In the chart below, we show what dividend payment DAA could make to sustain an FFO: debt ratio of at least 13% if passenger numbers were 10% lower than forecast or operating costs 10% higher than allowed for. For comparison purposes, we also plot the level of dividends that would correspond to dividend payments consistent with the assumed cost of equity each year. The chart shows that in the case of higher operating costs, DAA would still be able to pay a dividend in all years.
- 8.51 In the case of passenger numbers, DAA would also be able to pay dividends in the later years of the Determination. In 2015 and 2016, DAA would no longer be able to pay a dividend and retain an FFO: debt ratio of 13% if passenger numbers were 10% lower than forecast in all years, i.e. were to fall to around 20 million passengers in 2015. We do not think that such a scenario requires adjusting the price cap for that year. A fall of 10% would represent a significant drop in demand. Many companies' financial ratios would be adversely affected in such circumstances. The projections suggest that the ratios would recover fairly quickly. Moreover, some response from DAA might be expected following such a downturn, such as cutting back on capital expenditure (the rationale for capacity enhancing investments would be weaker following such a reversal).
- 8.52 We also have to consider the interests of users. A large drop in demand at Dublin Airport is likely to coincide with wider economic problems affecting many businesses, including DAA's users. We would not be protecting their interests if we asked them to pay higher airport charges to protect DAA against an economic downturn, especially when the problem would not arise if Dublin Airport's actual debt was slightly lower; for example, if it had not incurred all the costs associated with building Terminal 2 including those associated with box 2 and the sums we have disallowed. Finally, we think that the rationale for allowing a return on capital greater than the risk-free rate is because investors assume some risk. Increasing the price cap to permit healthy financial ratios in all scenarios would be protecting users from risks that the cost of capital calculations have implicitly made an allowance for.

Chart 8.2: Adjusting Dividends to Respond to Shocks (€m)

Other Financial Ratios

- 8.53 The preceding analysis looking at modelling actual debt and allowing for dividend payments has focussed on FFO: debt ratios. Extending that analysis to the other financial ratios included in Table 8.2, we find that making the changes described above would leave two of the three ratios above the threshold associated with a BBB rating.
- 8.54 The only ratio where this is not the case is the Debt: EBITDA ratio. For a number of reasons, we have concluded that we do not need to adjust our price cap to address this finding. We note that the Debt: Equity ratio for Dublin airport, as calculated from the regulatory accounts was 7.3 in 2011. It has improved in the last two years, such that in the 2013 regulatory accounts it was around about 6. Even when we allow for large dividends and assume a debt based on the regulatory accounts, we estimate a ratio that continues to decline from this rate. The trend is in the right direction.
- 8.55 We also note that getting it to or below 4 in 2015 or 2016 would require a higher price cap than is currently in place. DAA in its regulatory proposition suggested that it did not intend to increase prices in the coming years. From this, we infer that DAA accepts it can operate Dublin airport in a sustainable and financially viable manner even if its Debt: EBITDA ratio exceeds 4 in some years.
- 8.56 Second, we do not believe that demonstrating we have enabled DAA to operate Dublin airport requires allowing dividends of the size modelled above. DAA Group has paid three dividends since 2002; the largest of these in 2009 was €20.2m. Given this history, we think much more modest dividend payments than we modelled would be consistent with government policy that it expects to receive a dividend payment from DAA. The poor Debt: Equity ratios estimated arise in a scenario where DAA is paying dividends of about €60m. To allow it to fund such dividends, whilst maintaining a Debt: EBITDA ratio for Dublin airport of 4, would require increasing the price cap in 2015 by over €2 per passenger, so as to allow it to realise an EBITDA €50m larger (and about €70m more than its

2013 EBITDA).

- 8.57 We continue to believe that where different financial ratios are pointing in different directions, relatively more importance should be attached to the FFO: debt ratio. We note that asking users to pay more so as to improve the Debt: EBITDA ratio would improve other financial ratios to the point that they comfortably exceeded the values that might be expected for a BBB rating.
- 8.58 Finally, we continue to have reservations about accepting Dublin Airport's actual debt as the basis for assessing whether we have enabled the DAA to operate the airport in a sustainable and financially viable manner. This statutory objective has to be realised while also protecting the interests of current and prospective users. The latter objective could not be achieved if we indicated that we would adjust the price cap to support whatever level of debt DAA assumed for Dublin Airport.

Concluding comments

- 8.59 We are satisfied that our Determination is consistent with DAA operating Dublin Airport in a sustainable and financially viable manner.
- 8.60 In reaching this conclusion, we have continued to have regard to our other statutory objective. We have also considered the Ministerial direction, which rules out government equity injection and refers to government policy expecting a dividend.
- 8.61 The table below shows that our determination would allow Dublin Airport to realise relatively healthy financial ratios in the next five years without any equity injection and paying a dividend of €10m per year. While the annual dividend assumed is less than the cost of equity times the assumed level of equity, it still enables DAA to comply with government policy and start paying a dividend. A higher dividend would be possible in the latter years of the forthcoming determination.

Table 8.3: Financial Ratios using actual debt and allowing dividends

	2015	2016	2017	2018	2019	Target
FFO: net debt (%)	15	16	18	20	23	>13
Debt: EBITDA (x)	5.2	4.9	4.4	4.0	3.6	<4
FFO: cash interest	5.1	5.1	5.6	6.1	6.8	>3
EBITDA: interest	6.4	6.4	7.0	7.5	8.2	>4

- 8.62 In the immediate years, a larger dividend would mean the debt: EBITDA ratio remaining high. This could be addressed by lowering the level of debt. The government has indicated it is unwilling to make an equity injection. That leaves us with a choice between asking users to pay higher prices or expecting the entity to retain more of its earnings. We believe that the latter option is more consistent with protecting the interests of current and prospective users. We have already allowed some re-profiling of depreciation which has the effect of increasing the price cap during the next determination period over what it might otherwise have been.
- 8.63 We reject DAA's argument that our re-profiling of depreciation constitutes

evidence that our Draft Determination failed to enable the airport to operate in a sustainable and financial viable manner. If we accepted DAA's representation and did not re-profile depreciation charges, the price cap would have been lower in the next four years. We do not think that this outcome would be the appropriate response if there were genuine concerns about the financial viability of Dublin Airport given the Draft Determination.

9. Quality of Service

- 9.1 We have retained the financial incentives for DAA to meet certain service quality standards. As much as 4.5% of revenues from airport charges are at risk if DAA fails to meet these targets. We have not introduced any additional quality of service metrics. Therefore, the set of metrics we have set targets for 2015-2019 is the same as those proposed in the Draft Determination and used in the 2009 Determination.
- 9.2 All of the targets we are setting are at least as high as they were for the 2009 Determination. Many of the targets are being raised, although not to the same extent as proposed in our Draft Determination. The targets for passenger survey results now reflect a level of service that DAA has consistently achieved at Dublin Airport in recent years and is being achieved by a large proportion of airports similar to Dublin in terms of size. Where DAA is already doing relatively well compared to other airports, it will only suffer a financial penalty if the level of service drops to a level worse than that most other airports were offering in 2013.
- 9.3 Table 9.1 compares our final decision to the Draft Determination and the 2009-2014 targets. It also gives the percentage of revenue at risk for each target (these percentages remain the same as the 2009 Determination).

Table 9.1: Quality of Service Targets and Financial Incentives

	2009-14 Target	2015-2019 Target Draft	2015-2019 Target Final	% of Revenue at Risk
Percentage of passengers queuing for less than 30 minutes	100	100	100	1.5
Percentage of time out-bound baggage handling system unavailable for more than 30 minutes during hours of operation	0	0	0	0.75
Percentage of time in-bound baggage handling system available during hours of operation	99	99	99	0.25
All passengers (overall satisfaction)	3.50	4.00	3.90	0.25
Ease of way finding through airport	3.70	4.00	3.90	0.25
Flight information screens	3.80	4.00	3.90	0.25
Cleanliness of airport terminal	3.60	4.00	3.90	0.25
Cleanliness of washrooms / toilets	3.30	3.86	3.50	0.25
Comfort of waiting / gate areas	3.00	3.42	3.30	0.25
Courtesy, helpfulness of airport staff	3.80	4.00	3.80	0.10
Courtesy, helpfulness of security staff	3.80	3.98	3.80	0.15
Internet / Wi-Fi	3.10	3.47	3.10	0.25

Representations Received on Quality of Service

- 9.4 DAA objected to the proposal in the Draft Determination to set higher targets for quality of service in the upcoming regulatory period. DAA argued that the fact that historic performance had exceeded the targets did not necessarily imply that the targets should be changed.
- 9.5 DAA stated that Dublin Airport's current performance puts it in the top five airports in its peer group. DAA stated that if the targets proposed in the Draft Determination for the upcoming regulatory period were applied to this peer group, all the airports including the group leader would fail to meet at least one target. DAA considered that users had not called for higher targets and that there was no clear basis in regulatory principle for setting the targets this high.
- 9.6 DAA also argued that raising the targets would have an impact on requirements for operating expenditure. DAA suggested that changes to targets should be subject to a cost-benefit analysis of the change, and that the financial penalties associated with targets should be reviewed if the targets are changed.
- 9.7 Aer Lingus stated that we had dealt with quality of service "comprehensively and in a balanced way" in our Draft Determination. It stated that it understood the rationale for choosing not to introduce a target for the maximum security queue time of transfer passengers. Nevertheless it proposed that we should "make it clear in the Determination that DAA are obliged to ensure" high standards for the processing of transfer passengers. It argued that the integrity of the Determination depended in part on outturn transfer passenger revenue (including transfer passengers) aligning with our expectations.
- 9.8 ACI Europe also argued against raised targets. ACI considered that respondents to the Issues Paper with a claim to representing users (Aer Lingus and IATA) had warned against targets being set too high. ACI stated that this was because airlines understood that raising targets could generate higher operating costs.
- 9.9 ACI considered that we were mandating that Dublin Airport should be a top-class international airport, without any evidence that this was the outcome that would derive from a competitive market. ACI considered that the introduction of free Wi-Fi, for example, may have been a "sub-optimal" outcome in that a competitive market may have only supported the provision of Wi-Fi on a commercial basis.
- 9.10 ACI also considered it inappropriate to increase quality of service targets while disallowing capital projects to improve T1, in particular "T1 Check In & Security", "T1 Arrivals" and "T1 Façade".
- 9.11 British Airways advocated for introducing an on-pier service target metric. The airline drew attention to Heathrow's system in which charges rebates are paid to airlines when the airport does not meet its targets for on-pier service.
- 9.12 The enterprise agencies acknowledged that in principle there was a trade-

off between performance and costs, but they also considered that DAA's performance targets should be higher in some cases.

- 9.13 The enterprise agencies argued that targets should be based on DAA's recent performance, not its average performance over 2009-2013, which was lower.
- 9.14 The enterprise agencies considered it important for Dublin to be on a par with the best of its international peers. They also considered it important to provide free Wi-Fi.
- 9.15 Etihad asked us to ensure that airport security and search was given adequate resource to guarantee that all passengers could be processed within 30 minutes.
- 9.16 IALPA commented that the quality of service metrics proposed in the Draft Determination did not extend to airfield operations. IALPA stated that we should consider introducing quality of service metrics that target delays on the airfield, including taxi-out time or time spent waiting for a stand.
- 9.17 In relation to the proposal in the Draft Determination not to introduce a target for transfer security search, IALPA stated that it "expects CAR to ensure" that delays in the processing of transfer passengers are kept under close control by DAA. IALPA considered this issue to be related to the government's stated policy to promote Dublin as a secondary hub.
- 9.18 The Irish Exporters Association expressed concern that the capital expenditure and operating expenditure provisions in the Draft Determination may result in longer delays at security.
- 9.19 ITIC argued that we needed to "provide compelling evidence" that DAA would be able to maintain and enhance its existing level of service within the Draft Determination's allowances for capital expenditure and operating expenditure on security processing.
- 9.20 Ryanair welcomed the decision to move the end point of our measure of security queue length to where the passenger reaches the walk through metal detector.
- 9.21 Ryanair agreed that providing DAA with financial bonuses for meeting quality of service targets would not be appropriate.

Decision on Quality of Service

The Level of Targets

- 9.22 None of the respondents to the Draft Determination indicated that they would like to see higher targets for DAA than we had outlined in that paper. The enterprise agencies indicated that they thought it appropriate for us to set our targets in light of DAA's more recent performance. We agree that it is appropriate to consider the performance DAA has consistently achieved recently, in particular the service levels achieved since the opening of the second terminal in 2010.
- 9.23 DAA argued that the passenger survey score targets we had proposed in

the Draft Determination were too high, claiming that recently they would not have not been met by airports which it deemed to be its peers. We have investigated this claim using 2013 ACI ASQ survey data.

- 9.24 Our aim when setting the survey score targets is to incentivise Dublin Airport to maintain a good quality of service, not to mandate that the airport should be the best in its class. Therefore as well as having regard to the quality of service the airport has managed to provide in recent years, we are willing to take into account the quality of service achieved by airports serving similar numbers of passengers to Dublin.
- 9.25 Having regard to the evidence and representations we received, our final decision on the survey targets is to set some of them at a slightly lower level than we proposed to in the Draft Determination. All of the targets are still at least as high as they were in the 2009 Determination, and many of them are being raised. Where we are raising the targets, it is because we ascertain that 75% of the peer airports are already achieving scores at least as good as this.
- 9.26 We are satisfied that Dublin Airport should be able to meet these targets with the passenger numbers, operating expenditure and capital expenditure that we have forecast in the Final Determination. All of the survey targets we are setting are below the minimum recorded scores for Dublin since the end of 2012. Therefore the challenge for the airport will be to maintain the same quality of service it has managed to provide since in recent years, against a backdrop of increasing passenger numbers.
- 9.27 We reject representations suggesting we should increase operating or capital cost allowances if we want DAA to offer higher quality of service. The higher targets do not require DAA to offer a higher service level than it was providing in 2013, the year which SDG considered when looking at opex efficiency. SDG's report assumed no change in service level from what was being provided in that year.

Table 9.2: Quality of service targets and recent performance

	2009-2014 target	Dublin's minimum score since 2012	2014-2019 target (Draft)	2014-2019 target (Final)
Percentage of passengers queuing for less than 30 minutes	100		100	100
Percentage of time out-bound baggage handling system unavailable for more than 30 min during hours of operation	0		0	0
Percentage of time in-bound baggage handling system available during hours of operation	99		99	99
All passengers (overall satisfaction)	3.50	4.01	4.00	3.90
Ease of wayfinding through airport	3.70	4.05	4.00	3.90
Flight information screens	3.80	4.02	4.00	3.90
Cleanliness of airport terminal	3.60	4.19	4.00	3.90
Cleanliness of washrooms / toilets	3.30	3.88	3.86	3.50
Comfort of waiting / gate areas	3.00	3.46	3.42	3.30
Courtesy, helpfulness of airport staff	3.80	4.09	4.00	3.80
Courtesy, helpfulness of security staff	3.80	4.03	3.98	3.80
Internet / Wi-Fi	3.10	3.48	3.47	3.10

Sources: DAA, CAR

Airfield Targets

- 9.28 We decided against introducing targets for airfield performance.
- 9.29 The targets we set for DAA need to relate to outcomes over which it has an adequate degree of control. The quality of service passengers receive on the airfield is not the sole responsibility of DAA; the IAA has a significant role to play in minimising delays to aircraft as they taxi between stands and runways, for example. DAA is also not in a position to indirectly control these outcomes by appointing a terminal air traffic control provider of its own choosing.
- 9.30 Another potential problem with setting a high on-pier service target is that it this is not necessarily something that the generality of users value. For example, airlines that use remote stands would not benefit from such a target. Based on the representations received, with only a single airline requesting such a target, we are not persuaded that we should make the level of airport charges DAA can levy depend on such a metric for the forthcoming Determination.

Transfer Passenger Queue Length

- 9.31 We stand by our decision in the Draft Determination not to impose a target for the length of time transfer passengers spend queuing at security. Nevertheless we still expect DAA to ensure that these passengers receive a good quality of service, just as we expect DAA to ensure that this is the case for passengers at Dublin Airport generally.

10. Other Issues

- 10.1 There were three issues identified in the Draft Determination that did not readily fit into any of the other sections of that report: the separation of Shannon Airport, price differentiation, and the price-cap formula. The only issue to attract representations concerned our approach to price differentiation. None of the representations received prompted us to identify additional items under the heading of "Other Issues".

Separation of Shannon Airport

- 10.2 We have had due regard to the separation of Shannon Airport. In the Draft Determination we indicated that we did not think it had material implications for our findings about DAA's ability to operate the airport in a sustainable and financially viable manner, nor have any implications for our assumptions about future operating costs and commercial revenues at Dublin Airport. We continue to believe that to be the case in making this Final Determination.

Price Differentiation

- 10.3 This Determination does not include any sub caps requiring DAA to offer differential prices (including peak prices). But there is a requirement that if DAA is unable to provide an upgrade to the Arrivals area and Façade in terminal one by end 2015, it either levies a lower passenger service charge on users of terminal one or the 2015-2019 capital expenditure allowance will be reduced.

Representations Received on Price Differentiation

- 10.4 Aer Lingus welcomed the proposal in the Draft Determination not to introduce differential terminal pricing or off-peak charges.
- 10.5 CityJet suggested that we consider some form of differential pricing by pier should a solution to the non-segregation of Pier 2 not proceed. It also suggested we consider some form of differential pricing by terminal if there was no allowance for the Terminal one redevelopment products.
- 10.6 The Enterprise Agencies supported allowing DAA the discretion to use differential prices to send price signals to users.
- 10.7 Ryanair claimed that differential pricing was required to protect the reasonable interests of current and prospective users, given the user-pays principle. It argued that there is a serious differential in service between terminals one and two. It quoted evidence DAA had given to the UK Competition Commission in 2013 that suggested a cost differential of 10% in input costs between the two facilities. Ryanair also cited the 2009 Aviation Appeal Panel's support for regulatory intervention to require differential prices.
- 10.8 Stobart Air thought that DAA's current model of applying airport charges uniformly across all carriers unfairly disadvantaged smaller, regional carriers. It wanted us to develop a system of charges that reflected those differences.

Decision on Price Differentiation

10.9 There is some differential pricing at Dublin Airport. The European Commission found in a 2013 competition decision that

"airlines may, to a large extent, choose which particular service or facility they require and are willing to pay for in line with the business model they apply. There are no indications that DAA pursues a discriminatory practice with its airport charges policy."¹⁷

10.10 In support of its finding, the European Commission cited evidence in our 2010 Response to the Aviation Appeal Panel showing that average airport charges paid by the ten biggest airline customers of DAA can differ by 50% or more.¹⁸ We have revisited that work, and it continues to be the case that individual airlines are not all paying the same amount on a per-passenger basis. In every year between 2010 and 2013, there was a differential of at least 50% between at least two of the ten most popular airlines in terms of what they paid per passenger in airport charges.

10.11 So the question is whether a more interventionist regulatory approach could improve things. Is there a case for intervening more on the mix of charges that DAA levies?

10.12 Two reasons for our reluctance to intervene are:

- It would be difficult to define subcaps in such a way that DAA could not circumvent them; and
- It would be inflexible, preventing DAA from responding to changing preferences at the airport.

10.13 The rebalancing of charges for remote and contacts stands at Dublin Airport in the last five years arguably bears out these concerns. Any subcap on what could be charged for remote stands would have had to define what exactly constitutes a remote stand. It is unlikely any such definition would have been robust to attempts by DAA to circumvent the subcap's intention if it was so minded.

10.14 Even if we could have defined the subcap such that it was binding as intended, we do not believe the outcome would have been in the general interests of current and prospective users (although it might have benefitted some individual airlines at the expense of others). With more users demanding remote stands, DAA would have been unable to constrain this demand by increasing the relative cost of those stands so as to match the supply and demand for contact and remote stands. Instead, the outcome would have been surplus demand for remote stands whilst some contact stands remained idle. At the same time, DAA would have been able to increase other categories of airport charges so as to continue collecting the same level of per passenger revenues. It is difficult to see

¹⁷ Paragraph 109, Case No COMP/39.886 – Ryanair/DAA-Aer Lingus – Complaint under Articles 101 and 102 of the Treaty Commission Decision rejecting the complaint, http://ec.europa.eu/competition/antitrust/cases/dec_docs/39886/39886_205_3.pdf

¹⁸ Page 11, CP2/2014 "Decision of the Commission further to Referral by the 2010 Aviation Appeal Panel" http://www.aviationreg.ie/fileupload/2010-07-30_Response_to_Appeal_Panel.pdf

how the generality of airport users would benefit from an outcome where they are paying the same average price, but getting to make less use of contact stands.

10.15 For these reasons we do not intend to intervene and set a subcap governing charges levied for remote stand users or users of different piers. In the case of remote stands charges, we are happy for DAA to continue varying the charges in response to changing demand. We encourage it also to consider tailoring its prices for different piers even though we do not propose in this Determination to intervene directly. Which pier arrangement is least attractive may change over time. Concerns have been expressed about walking distances to Pier 1 and (from Terminal 2 users) Pier 3; the current appearance and arrangements in Piers 2 and 3; and the desirability of using Pier 4 if required to bus to Apron 5G. Attempting to guess today a pricing structure for the next five years such that demand for different piers will equate with available capacity in all the various piers we think would be counter-productive.

10.16 The more compelling case for intervention relates to the passenger charge levied on users of terminals one and two. Many parties in their representations to the office supported investments included in DAA's CIP that would improve Terminal 1. In support of such projects, DAA itself cited a study it had commissioned that suggested passengers were willing to pay over €2 per passenger for projects relating to the terminal's façade and arrivals area. We have made an allowance for those two projects, and made them deliverables.

10.17 But for as long as the projects are not delivered, the implication is that Terminal 1 users are receiving an inferior product. There are two ways that the reasonable interests of current and prospective users in the terminal might be protected. One would be for the projects to be completed promptly. The other would be for users there to pay a lower passenger service charge because the terminal is not offering a suitable level of service. Reflecting this, our allowance for the projects Terminal 1 Arrivals and Terminal 1 Façade is conditional on DAA either

- Completing the projects by end 2015; or
- Completing the project by end 2019 and having levied a passenger service charge on terminal 1 users that is at least €1 less than the passenger service charge levied on terminal 2 users for at least one year prior to completion of the project.

10.18 The requirement on lower charges protects current and prospective users in terminal one from delays in providing them with a suitable arrivals area. It would also provide a good test of whether there really is demand for the investment.

Price Cap Formula

10.19 Our price-cap formula no longer includes an annual adjustment to account for variations in forecast and outturn levies that DAA pays for the running of this office. This correction will instead take place at the time of the next determination.

10.20 DAA will have 90 days to reimburse users should its revenues from airport charges exceed the annual price cap.

10.21 Both of these changes were indicated in the Draft Determination.

11. Compliance with Statutory Requirements

- 11.1 This Determination complies with our statutory requirements. We set out in Section 2 how we complied with the Ministerial Direction received in September.
- 11.2 Our statutory objectives, as well as the statutory factors to which we have to have regard, are set out in Section 33 of the Aviation Regulation Act, 2001, as substituted by Section 22(4) of the State Airports Act, 2004. As far back as 2005 we set out our interpretation of these statutory objectives and factors.¹⁹ This interpretation is consistent with the approach taken in both the second and third Determinations, and is the approach we have taken here. We believe that our statutory objectives permit us to regulate airport charges at Dublin Airport with reference to the economic concepts of allocative, dynamic and productive efficiency. Consequently economic efficiency remains the driving principle behind this Determination, as it has been in all past determinations.
- 11.3 The rest of this section sets out how this Determination complies with the statutory objectives and statutory factors that apply.

Statutory Objectives

- 11.4 When making a Determination for airport charges, we have three statutory objectives. They must be read together and in light of one another.

To facilitate the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users of Dublin Airport

- 11.5 By allowing DAA to recover revenues sufficient to meet efficiently incurred costs of operating and developing the Airport we meet this statutory objective. Sections 5 and 7 provide more detail on how we have determined what operating and capital expenditures to include in our price-cap calculations. In Section 7 we set out the allowances for investment projects that we believe are necessary to meet the requirements of current and prospective users.

To protect the reasonable interests of current and prospective users of Dublin Airport in relation to Dublin Airport

- 11.6 To protect users' reasonable interests, we have set quality of service standards that DAA must provide (see Section 9) and set a price cap that reflects a reasonable estimate of the costs that DAA needs to recover in order to provide the required services that users require (see Sections 5 and 7).

¹⁹ See CP9/2004 "Commission for Aviation Regulation's conclusions on the impact of the amendments to the Aviation Regulation Act, 2001, on the regulation of maximum levels of airport charges in Ireland", http://www.aviationreg.ie/fileupload/Image/PR_Policy_PUB2_POL_CP9_2004_AVIATION_ACT.pdf

To enable Dublin Airport Authority to operate and develop Dublin Airport in a sustainable and financially viable manner

11.7 Section 8 sets out why this Determination satisfies this statutory objective. The annual price cap is sufficient to allow DAA to recover all forecast, efficient operating costs as well as allowing for some depreciation charges and a return on capital (as measured by the RAB). Some investment costs will not be fully depreciated by end 2019, these remaining costs will be included in the closing RAB in 2019 with the intention that such costs will be remunerated through airport charges at a later date.

Statutory Factors

11.8 There are nine statutory factors that we must have due regard to when making a determination governing airport charges.

The restructuring including the modified functions of Dublin Airport Authority

11.9 In Section 10 we refer to the separation of Shannon Airport from the DAA Group. As set out there, we do not believe the restructuring has a material bearing on our calculations.

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

11.10 We assess DAA's CIP in Section 7 and arrive at an allowance that we think constitutes an efficient level of investment in airport facilities at Dublin Airport to meet the needs of current and prospective users, having regard to safety requirements and DAA's commercial operations.

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

11.11 In Section 5 we set out our treatment of operational income at Dublin Airport. We continue to favour a "single-till" approach to regulation when determining the price cap on airport charges. For this reason, we have included commercial revenues in our price-cap calculations, such that DAA will be able to recover sufficient income from commercial revenues and airport charges to meet efficiently incurred costs.

11.12 We are not aware of any income arising from arrangements DAA has entered into for the purposes of restructuring under the 2004 State Airports Act.

Costs or liabilities for which Dublin Airport Authority is responsible

11.13 The Determination has regard to costs and liabilities of DAA in a number of sections, most obviously Sections 5 and 7 where we have regard to DAA's operating and capital costs.

The level and quality of services offered at Dublin Airport by Dublin Airport Authority and the reasonable interests of the current and prospective users of these services

11.14 Section 9 deals with the level and quality of service to be offered by DAA. We have proposed a service quality monitoring scheme similar in design to that used in the 2009 Determination.

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

11.15 We were notified of the draft National Aviation Policy and government policy seeking a dividend from DAA in a letter sent to the office in July 2014. The Ministerial Direction that was issued subsequently, in September, also referred to the draft National Aviation Policy. Section 2 sets out how we think the draft National Aviation Policy is relevant when making a determination governing airport charges at Dublin Airport, and therefore outlines how we have had regard to this policy. Arguably, the policy is most relevant to our Determination when thinking about what investment allowance to make, a topic covered in Section 7.

11.16 Section 2 also discusses how we have had due regard to the government policy requiring a dividend from DAA.

The cost competitiveness of airport services at Dublin Airport

11.17 The proposed price cap is lower than currently in place, so should improve the cost competitiveness of airport services at Dublin Airport.

11.18 We continue to believe that this factor has to be read in light of statutory objective (a), which seeks the efficient operation of Dublin Airport. The maximum level of airport charges are with regard to those costs that an efficient operator at Dublin Airport would need to incur. In deriving estimates for future costs (both operating and capital expenditure), as well as commercial revenues, we have had regard to how DAA compares with other airports.

Imposing minimum restrictions on Dublin Airport Authority consistent with the functions of the Commission

11.19 We continue to afford DAA a large measure of discretion in how it manages Dublin Airport, merely requiring it to comply with an annual per passenger airport charge and to meet certain service-quality targets. Subject to complying with the overall price cap, DAA continues to have discretion on how it sets individual charges at Dublin Airport since we have proposed no sub caps (although to protect the interests of prospective users, we have indicated that DAA should either complete the refurbishment of terminal one in 2015 or charge terminal one users lower charges for a year prior to undertaking the work).

Such national and international obligations as are relevant to the functions of the Commission and Dublin Airport Authority

11.20 National and international obligations evolve over time and could be

subject to change during the next five years. In making this Determination, we have had regard to those requirements that are currently in place.

- 11.21 Since 2011 we have been the Independent Supervisory Authority for the purposes of the Airport Charges Directive. This does not change our role in determining the overall price cap within which DAA is to set its airport charges. The Directive, as it applies in Ireland, does require DAA to consult with airport users in regard to the system of airport charges, the level of airport charges and, as appropriate, the quality of services provided. We have had regard to such consultations in making this Determination.
- 11.22 We have had regard to DAA's safety and compliance obligations under national law, including the Air Navigation and Transport Acts, 1936 to 1998, as well as legislation relating to the IAA. We have also had regard to the security, immigration and health and safety requirements that airports are subject to because people use them to enter and exit the State.
- 11.23 Ireland is a signatory to the Chicago Convention, which was incorporated into domestic law by the Air Navigation and Transport Act 1946. To the extent that this creates international and national obligations, we have had due regard to it.

Appendix 1: Respondents to the Draft Determination

The following parties responded to the Draft Determination. All parties were offered the opportunity to meet with us to discuss their response. Parties marked with an asterisk accepted the offer of a meeting.

- ACI Europe
- Aer Lingus*
- American Airlines
- British Airways*
- Car Rental Council
- Chambers Ireland
- Cityjet
- DAA*
- DAA Trade Unions*
- Dublin Chamber*
- Forfás, IDA and Enterprise Ireland (the enterprise agencies)*
- Etihad
- Fáilte Ireland
- Fingal Dublin Chamber
- Flybe
- IAA (Irish Aviation Authority)*
- IALPA (Irish Airline Pilots' Association)*
- IATA (International Air Transport Association)*
- IBEC (Irish Business and Employers' Confederation)*
- ICE (International Currency Exchange)
- ICTU (Irish Congress of Trade Unions)*
- IEA (Irish Exporters Association)
- ITIC (Irish Tourist Industry Confederation)
- ITOA (Irish Tour Operators Association)
- Lufthansa Swiss
- Maldron Hotel
- Norwegian*
- Ryanair
- Sky Handling
- Stobart Air*
- Tourism Ireland
- Turkish Airlines
- Westjet

Appendix 2: Passenger Forecasting Ancillary Analysis

1. Respondents to the Draft Determination made a number of criticisms of our approach to passenger forecasting. The bulk of our response to those criticisms is provided in Section 4 of this Determination. The purpose of this appendix is to respond to the remaining methodological issues raised by respondents, and provide details of the statistical analyses that informed our final decision.

Regression Analysis

2. Respondents made a number of criticisms of our regression analysis. Ultimately, we were not convinced that any party had shown that our forecast rested on an inappropriate interpretation of the data.
3. In Table A2.1 we have reproduced the passenger numbers regression from the Draft Determination which led us to adopt an elasticity of passenger numbers to GDP of 1.15. In the Draft Determination there was a transcription error with the constant in this equation, which we have now corrected. We also now report the goodness of fit statistic.

Table A2.1: Passenger Numbers Regression in Draft Determination

Ln(passengers in quarter n)	Coefficient	Standard error	P value	Significance ²⁰
Constant	-12.78	0.99	0.00	***
Ln(GDP)	1.15	0.04	0.00	***
Q1 dummy	-0.06	0.02	0.01	**
Q2 dummy	0.17	0.02	0.00	***
Q3 dummy	0.34	0.02	0.00	***
2006-07 dummy	0.10	0.02	0.00	***
Adjusted R-squared: 0.957				

4. DAA and its consultants NERA questioned the robustness of these regression results on two particular grounds. First, NERA suggested that GDP was a non-stationary variable and that this created a risk that our estimate of the GDP elasticity of demand was spuriously high. We investigated the possibility of adapting our original model to head off this problem. This adapted model produced an extremely similar elasticity to the one we had originally estimated. Results are shown in Table A2.2.

Table A2.2: Logged Differenced Model

Δ Ln(annual passengers)	Coefficient	Standard error	P value	Significance
Δ Ln(GDP)	1.15	0.22	0.00	***
2006-07 dummy	0.06	0.03	0.11	
Adjusted R-squared: 0.711				

5. NERA's second claim was that it had found evidence that could indicate our model was "missing some potentially important dynamic effect." We fitted several different models with dynamic effects in order to see if this was the

²⁰ *** = $p < 0.01$, ** = $p < 0.05$

- case. We found no indication that any of those models were superior to the one we had originally specified.
6. The other comments on our regression analysis all related to the notion that we had omitted important predictor variables. We summarised our conclusions on those points in Section 4. Here, we provide a more detailed description of our work to investigate potential relationships between Dublin Airport passenger numbers and GDP in countries other than Ireland.
 7. We considered two approaches to incorporate foreign GDP. The first of these was to add UK, US or Eurozone GDP as additional predictor variables in our regression equation. The second elaboration involved substituting our Irish GDP indicator with a new indicator we calculated. This new indicator comprises a weighted average of North American, European, British and Irish GDP indices, where the weights are proportional to the number of passengers at Dublin Airport travelling to or from those destinations. When generating forecasts we used IMF July forecasts for growth in all the countries' GDPs.
 8. The first type of elaboration (use of several predictor variables) appeared to suffer from multicollinearity problems. The elasticities we derived from these models implied very high future growth. For example, the parameters we estimated from a model in which Dublin Airport passenger numbers were regressed on UK GDP, USA GDP, Ireland GDP and Eurozone GDP implied that passenger numbers will be as high as 26.3m in 2019. This is significantly higher than any of the forecasts we received from respondents to the Draft Determination.
 9. The second type of elaboration (use of a weighted GDP index) yielded a forecast with a growth rate within the range suggested by other respondents. In order to produce this forecast, we regressed Dublin passenger numbers on an index that capture changes in GDP in global regions served by the airport (including Ireland) weighted in proportion to the number of passengers departing from or arriving in those regions. The results of this regression analysis are given in Table A2.3.
 10. We then extended the blended GDP index out into the future by using IMF projections of GDP in the relevant countries, and combined this with the elasticity implied by our regression analysis. The rate of growth of the blended GDP index, and our resulting prediction on the rate of growth of passenger numbers, is given in Table A2.4. This forecast equates to a compound annual growth rate over 2014-2019 of 3.7%, i.e. slightly higher than the 3.3% assumed by Ryanair and Aer Lingus, and about 1% higher than DAA assumes.

Table A2.3: Blended GDP Index Model

Ln(passengers in quarter n)	Coefficient	Standard error	P value	Significance
Constant	-25.06	2.43	0.00	***
Ln(blended GDP)	1.64	0.10	0.00	***
2006-07 dummy	0.08	0.04	0.07	
Adjusted R-squared: 0.958				

Table A2.4: Blended GDP Index Model Growth Forecast

	2014	2015	2016	2017	2018	2019
Blended GDP growth	1.7%	2.2%	2.3%	2.2%	2.2%	2.2%
Passenger growth	2.9%	3.6%	3.7%	3.7%	3.7%	3.7%

Appendix 3: Commercial Revenue Regressions

Table A3.1: Estimating Elasticities for Commercial Revenue

	Retail	Parking	Other (Excl CBP)	Property Rents	Property Concessions	Advertising
Ln(Pax)	0.671***	0.993***	2.076***	0.136	0.199.	1.144***
Trend		-0.005***				
Constant	5.64***	1.04	-16.5***	12.2***	11.3***	-3.8

2001-2013 monthly data, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.5$, . $p < 0.1$

11.24 The Draft Determination did not include regression results for Advertising due to confidentiality concerns, DAA has indicated it will publish Advertising outturns in its regulatory accounts so we now include the regression results above.

11.25 We have tested for non-stationarity and found no evidence of such.

Appendix 4: 2010-2014 Capex Reconciliation

Table A4.1: Status of Deliverables

	Project	Delivered	Adjustment	
			Draft, €m	Final, €m
Landside Infrastructure				
CIP3.035	Internal secondary campus roads	Yes		
CIP3.033	Repairs to departure roads	No		-4.4
CIP3.012	Taxi holding area	Yes		
CIP1.016	Refurbishment of existing MSCP	Yes		
CIP3.034	External roads upgrade	No	-2.2	-2.2
CIP3.014	Airside/landside perimeter fence	Yes*		
CIP8.300	Metro and GTC design fees	No	-2.0	-2.0
Piers and Terminals				
CPI7.036	T1 life safety system upgrade	Yes		
Plant and Equipment				
CPI4.014	Replace CHP2	Yes		
Revenue				
CIP2.018	Cargo works	No	-8.5	-8.5
CIP2.019	Retail logistics centre	No	-3.2	-3.2
Stands and airfield				
CIP6.017	Overlay runway 10/28	Yes		
CIP6.052	Central apron reconstruction	Yes*		
CIP6.018	North runway fees	No	-4.3	-4.3
CIP6.056	Apron road reconstruction	Yes*		
CIP6.057	Airfield generator replacement	Yes		
CIP6.009	Engine testing facilities fee only	No	-.2	-.2
	Runway 11/29 refurbishment	No	-4.6	-4.6
Utilities				
CIP9.024	Fuel farm redevelopment	No	-14.7	-14.7
CIP9.019	Divert and increase cuckoo culvert capacity	No		-11.2
CIP9.022	Airfield pollution control	Yes*		
CIP9.021	Airfield drainage upgrade (3km)	Yes*		
CIP9.020	MV network renewal works A	No	-2.5	-2.5
Adjustment to Allowance Due to Undelivered Projects			-42.2	-57.8

Source: DAA Submission. *Delivery due in 2014 – will be checked in 2019.

Table A4.2: Responses Received and Decisions – Project Level

Project (amount, €m)	Response Received	CAR Decision
Landside Infrastructure		Change: RAB +1m
Car park works (1)	DAA requests that this project be allowed to move group, from <i>Revenue</i> to <i>Landside Infrastructure</i> , as no revenue is expected from the project in the current period.	We have allowed the project to move group.
Extra allowance for T1 MSCP (1)	DAA states that the decision on this consultation was unclear in the Draft Determination. As with other consultations it said that consensus among all users was difficult to reach and so the allowance should be increased based on the consultation.	DAA had an allowance for this project and the consultation reached a clear conclusion, not all users agreed that the allowance should be increased. To protect the interests of current and perspective users, in the absence of evidence of user support for increasing the budget allowed for spending under <i>Landside Infrastructure</i> , we have not revised our overall allowance on account of this representation.
Stands and Airfields		No Change
10/28 Stopbars (1)	DAA states that at the time of the 2009 Determination the project was not complete. It argues money spent in the period 2010-2014 on the project should be allowed.	The project was in the group <i>Other Capacity Projects</i> in 2005-9, that group was over allowance in 2009. We have accounted for the 2010 spend in <i>Stands and Airfields</i> but as the group is over allowance it has no material effect on the opening RAB.
Piers and Terminals		No Change
Pier 3 Connecting Corridor (9)	DAA claims this is a well-used and successful project. It would like the allowance for the group increased based on this project.	DAA consulted on this project in 2009, in our 2009 Determination we made no allowance for this project as it was considered a T2 project. To protect the interests of current and perspective users, in the absence of evidence of user support for increasing the budget allowed for spending under <i>Piers and Terminals</i> , we have not revised our overall allowance on account of this representation.
Terminal 1 Departures Strategy (3)	DAA claims this project should increase the allowance for the group as it resulted in opex savings and incremental commercial revenues. Ryanair states that this project should not be allowed as it was not supported by users.	This was part of 2009 consultations. In our 2009 Determination we made no allowance for this project as it was not supported by users. DAA proceeded with the project. To protect the interests of current and perspective users, in the absence of evidence of user support for increasing the budget allowed for spending under <i>Piers and Terminals</i> we have not revised our overall allowance on account of this representation.

Terminal 1 redevelopment (1)	DAA claims optioneering on T1 refurbishment should increase the allowance for this group.	DAA did not consult with users on this spend. We have not increased the allowance for the group based on this representation.
Pier 3 refurbishment (2) Terminal 1 roofs (2)	DAA claims that these projects should be allowed due to consultations it held with users. It states that consensus among all users is difficult to reach. Sky Handling confirmed its support for these projects	To protect the interests of current and perspective users, in the absence of evidence of user support for increasing the budget allowed for spending under <i>Piers and Terminals</i> we have not revised our overall allowance on account of this representation.
CBP/TSA Expansion (5)	Ryanair claims that spend on this project should not be allowed as it was stated at consultations that it would not result in an increase in airport charges.	While we allow the CPB/TSA expansion enter the RAB we have also uplifted commercial revenues by the extra revenue expected. For the period 2015-2019 this project reduces airport charges.
Retail		No Change
Retail Refurbishments (11)	Ryanair claims retail refurbishments should not be allowed enter the RAB as there has been no incremental revenue from the project.	We believe retail refurbishments are needed to protect existing retail revenues rather than generate incremental revenues. The spend, up to the allowance, has entered the RAB.
Revenue		No Change
Airport Genie, Commercial Concessions, Exec Lounges, Advertising, Data service centre. (3)	DAA claims that these projects should be allowed as they generate commercial revenues.	DAA had an allowance for <i>Revenue</i> which it overspent. It had the option to hold consultations with users on these projects. We have made no adjustments to the allowance based on these projects.
PCB Investment (4)	DAA asked for the spend on the refurbishment of this building to increase the allowance for the group. This office block is one of the DAC competing properties which DAA had offered to exit from the till if deemed necessary by CAR.	We have accounted for the spend in the <i>Revenue</i> group but as DAA did not consult with users on this project we have made no adjustment to the allowance. DAA have overspent on this group so accounting for the spend has no material effect.
Stands and Airfields		No Change
Runway fees (1)	DAA asked for this expenditure to increase the allowance even though the deliverable was not delivered. The money was spent on preparing for a planning permission application.	The deliverable for this project was revised planning permission, it has not been delivered. When the second runway is complete we will reconcile all expenditure on the project including this expenditure.
Utilities		Change: RAB +1m

Voice Data comms (1)	DAA states that at the time of the 2009 Determination this project was not complete; it argues money spent since 2009 should be allowed.	In 2005-2009 this project was in the <i>general</i> group. Spending in that group was under allowance. We have increased the allowance and spend in <i>utilities</i> by the amount spent on the project in the period 2010-2014.
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Appendix 5: 2015-2019 Capex Allowances

Table A5.1: Representations Received on 2015-2019 Capex Allowance

Project (Code)	Representations Received	Draft	Final	Decision
Airfield Maintenance				
Runway 16/34 Pavement Rehabilitation (15.6.001)	British Airways supported this project. IALPA supported this project. It believed runway 16/34 is essential for the resilience of the Airport. Ryanair supported this project but at a cost of 18m.	y, D	24.5 D	These projects are required to facilitate the efficient and economic development of Dublin Airport. Maintaining the assets of the airport is in the interests of current and prospective users. We therefore continue to make an allowance for these projects. Much of this group was justified on the basis that it was essential, therefore three of the larger projects are deliverables. Ryanair have provided alternative costings for these and other project however it has provided no detail as to how it arrived at this cost, we therefore use DAA's costings for all projects.
Apron Rehabilitation (15.6.002)	British Airways supported this project. Ryanair supported this project but at a cost of 12m.	y	21.1	
Airfield and Apron Road (15.6.006)	British Airways supported this project. Ryanair supported this project but at a cost of 1m.	y	1.7	
Airfield Taxiway Rehabilitation (15.6.055)	British Airways supported this project. Ryanair supported this project but at a cost of 10m.	y	16.1	
Overlay Runway (15.6.017)	British Airways supported this project. Ryanair supported this project but at a cost of 20m.	y, D	22.5 D	
Airfield Pollution Control (15.9.022)	British Airways supported this project. Ryanair supported this project but at a cost of 15m.	y, D	20.1 D	
Airfield Lighting Upgrade (Runway 10/28) (15.6.004)	British Airways supported this project. Ryanair supported this project but at a cost of 8.3m.	y	9.2	
Taxiway AGL Upgrade (15.6.009)	British Airways supported this project. Ryanair supported this project but at a cost of 2.5m.	y	3.9	
Airfield Vehicles and Equipment (15.4.001)	British Airways supported this project. Ryanair supported this project but at a cost of 2m.	y	5.7	
Business Development				
Apron Development 5G (15.6.047)	British Airways saw some benefit in this project to provide extra capacity, but it would not want to use the apron itself. While the IAA supported this project it did not support bussing between it and the bus lounge in its proposed location.	y, D	n/a	This project was included as a triggered project in the 2009 Determination. The trigger was reached on June 16, 2014. The project will therefore be reconciled with 2010-2014 capex

Project (Code)	Representations Received	Draft	Final	Decision
	<p>IALPA believed this project is a waste of resources and compared it to the west apron which is currently underutilised. It believed that options for using the west and south aprons must be explored. It also did not believe 5G would improve access to the runway.</p> <p>Ryanair supported this project but at a cost of 10m.</p>			rather than included in the 2015-2019 allowance.
Airfield Infrastructure for large aircraft (15.6.007)	<p>ACI supported this to encourage growth.</p> <p>American Airlines supported this project to improve accommodation of the B777 aircraft.</p> <p>While not directly stating support for this project, the enterprise agencies stated that Dublin Airport should be able to handle the A380.</p> <p>DAA stated that this project is needed for ICAO compliance for operation of the B777 (a type which had 1070 movements at Dublin in 2013).</p> <p>Etihad supported this project, citing improved airfield efficiencies.</p> <p>IAA supported this project to improve the efficiency of airfield movements.</p> <p>IALPA supported this project to improve safety and efficiency.</p> <p>IATA wanted to see consultation with airlines on code F operations before this project is allowed.</p> <p>IEA supported this project as it improves the facilities for larger aircraft which it states are likely to be used for longer distance destinations.</p> <p>Norwegian supported this project to improve movement of large aircraft.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this to provide capability for code F aircraft.</p>	n	1.5	We have allowed this project based on representations, and the resulting efficiency and safety aspects of the project. We believe it will contribute to the efficient development of the airport and is in the interest of current and prospective users.
Pier 3 Flexibility (15.7.116) Cost: €15m in CIP. €27m in DAA response to Draft Determination.	<p>ACI supported this project to encourage growth.</p> <p>British Airways supported redevelopment of Pier 3. However, it did not support the accommodation of the A380 as it believed it would cause undue pressure on the</p>	n	15	We have allowed the costs of the original project based on representations received, and because the project will help

Project (Code)	Representations Received	Draft	Final	Decision
	<p>area.</p> <p>Dublin Chamber supported this project, saying it would help bring T1 in to line with T2.</p> <p>While not directly stating support for this project, the enterprise agencies stated that Dublin Airport should be able to handle the A380.</p> <p>Etihad supported this project as it provides greater widebody capabilities including support for the A380.</p> <p>IAA supported this project, citing potential growth from the ability to accommodate large aircraft such as the A380.</p> <p>IALPA supported improvements to Pier 3.</p> <p>IATA's view is that this project could not be justified as it is a short term fix for a pier that will, eventually, be replaced.</p> <p>IEA supported this project as it improves the facilities for larger aircraft which it states are likely to be used for longer distance destinations.</p> <p>ITIC supported improvements of gate areas associated with T1.</p> <p>Norwegian supported this project as it would support the development of its long haul capability.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this to provide capability for code F aircraft.</p> <p>Turkish Airlines supported some refurbishment of pier 3 with a priority on better maintenance of existing air bridges, better temperature control and improved seating areas.</p>			<p>promote direct international air links to key world markets, consistent with the draft National Aviation Policy. To protect the interests of current and prospective users, we have not allowed the larger, revised sum that DAA proposed for this project in its response to the Draft Determination. The revised costs seems high relative to any incremental traffic that the extra work might facilitate, such that we do not believe it would represent an efficient and economic development.</p>
<p>Bus Lounge Facilities (15.7.120)</p>	<p>Aer Lingus supported a bussing lounge but argued the project as specified is 50% oversized.</p> <p>British Airways did not support this project as it would result in a poor product offering.</p> <p>IALPA did not support this project; it believed a better position for a bussing lounge would be Pier 3 and stated</p>	<p>y, D</p>	<p>0</p>	<p>We have changed this from an allowance of 12m in the Draft to not allowed. We believe the proposed location is problematic and not supported by users. We also concur with Aer Lingus'</p>

Project (Code)	Representations Received	Draft	Final	Decision
	<p>there is currently space there to develop a cheaper alternative.</p> <p>Ryanair stated that Pier D could be used for bussing at a cost of €2m.</p>			<p>argument that the facility is oversized. Separately, we have allowed the transfer facility which we also believe may be oversized. Given the flexibility in this group DAA has the option to deliver both projects as scaled down versions.</p>
<p>Central Search Area – New Technologies (15.4.004)</p> <p>DAA have revised the cost of this project to 13.2m</p>	<p>ACI believed this is needed to maintain QoS standards.</p> <p>British Airways saw some benefit in the project.</p> <p>Chambers Ireland believed this project should be allowed to ensure compliance with EU requirements.</p> <p>DAA stated that this project is needed for immediate regulatory compliance for LAGS and ETD.</p> <p>Etihad supported this project.</p> <p>IAA claimed this project is needed for security compliance.</p> <p>IATA stated that “it is the firm belief of airlines that the new technologies are not required.”</p> <p>IBEC supported this project to ensure compliance.</p> <p>IEA supported this project.</p> <p>ITIC stated that we need to provide compelling evidence that this project is not needed to ensure security standard remain high.</p> <p>Norwegian supported better security equipment to improve the customer experience.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this to ensure regulatory compliance.</p> <p>Turkish Airlines supported this project.</p> <p>Westjet supported the acquisition of equipment for regulatory compliance.</p>	<p>n</p>	<p>13.2</p>	<p>We have allowed this project. DAA have revised its cost since the Draft Determination. About half of the project is potentially mandatory for regulatory compliance. The remainder is for productivity improvements. This is not a deliverable so DAA will have flexibility to reassign expenditure between mandatory and productivity equipment as the need arises during the period.</p>

Project (Code)	Representations Received	Draft	Final	Decision
<p>T2 Transfer Facility (15.7.117)</p>	<p>ACI supported this to encourage growth. Aer Lingus stated it would support a scaled down version of this project. British Airways was happy with the current transfer facility. It believed the size of the new facility is excessive, comparing the proposed 10 lanes with the 16 lanes for the whole of T1 departures. Chambers Ireland supported this to help Dublin Airport develop as a "secondary hub airport", it believed it would result in improved connectivity. While not directly stating support for this project, the enterprise agencies believed Dublin Airport should have the infrastructure to allow it develop as a Hub. DAA believed this is needed to deal with future growth in transfer passengers. Etihad supported this project. Fingal Dublin Chambers supported this project, to contribute to the development of Dublin Airport as a secondary hub. IAA supported this project, citing potential growth in this sector. IALPA believed the current solution is adequate. IBEC supported this project to enable the airport develop as a secondary hub. IEA supported this project, stating that transfers make more routes viable. Ryanair did not support this project. Sky Handling supported this project as it claims the current facility struggles to cope with demand.</p>	<p>n</p>	<p>21.6</p>	<p>We have allowed this project. We believe this will contribute to the development of Dublin Airport as a transfer hub in line with the draft National Aviation Policy. However, we believe the facility may be oversized and would encourage DAA to explore lower cost options. As this is not a deliverable expenditure saved on a smaller facility could then be used to deliver a smaller bussing lounge or other projects arising in <i>Business Development</i>.</p>
<p>Pier 1 Enclosed Gates (15.7.122)</p>	<p>British Airways supported this project. Ryanair did not support the allowance for this project. Instead it believed there should be a trial of one gate and a follow-on consultation.</p>	<p>y</p>	<p>0</p>	<p>We have not made an allowance for this project. We have accepted the representation of Ryanair that this project is not in the interests of current and prospective users.</p>

Project (Code)	Representations Received	Draft	Final	Decision
<p>T1 Arrivals (15.7.121) T1 Façade (15.7.119)</p>	<p>American Airlines supported these projects to encourage airlines to move from T2 and relieve congestion in T2.</p> <p>British Airways believed these projects are needed to bring T1 in line with T2. It stated that the arrivals area in T1 is very dark and the façade project would improve the look of the building for a relatively small investment.</p> <p>Chambers Ireland supported this project in order to improve the product offering and customer experience in T1.</p> <p>City Jet believed this project would help bring T1 up to the standard of T2 and so should be allowed.</p> <p>DAA believed these projects are critical to rebalance the airport and increase inter-operability between terminals. It has provided evidence that passengers are willing to pay for these projects.</p> <p>Dublin Chamber supported this project, saying it would help bring T1 in to line with T2.</p> <p>Final Dublin Chamber stated that T1 is in need of a major overhaul and re-development.</p> <p>Flybe supported the refurbishment of T1 in order to make it comparable to T2 and other international airports.</p> <p>IAA supported the redevelopment of T1.</p> <p>IATA did not support the refurbishment, saying it is largely cosmetic.</p> <p>IBEC believed T1 needs an upgrade to realise its full potential and ensure a good passenger experience. It claims failure to invest in T1 will restrict the airport's potential to develop as a secondary hub.</p> <p>IEA supported the refurbishment of T1, stating that an improved T1 will result in more airlines and routes operating from Dublin.</p> <p>ITIC stated improvements to T1 will result in growth.</p> <p>Lufthans/Swiss stated support for T1 improved but</p>	<p>n n</p>	<p>9.0 .7</p>	<p>Based on the representations received we have revised our position on the Refurbishment of T1 arrivals and T1 façade. We have placed conditions on this project which are detailed in Section 10. While we acknowledge there is not unanimous support for this project, particularly at the scale proposed, the improvements appear to be in the interest of current and prospective users.</p>

Project (Code)	Representations Received	Draft	Final	Decision
	<p>believed it could be done while maintaining the price path CPI-4.8% (via a lower WACC and lower opex).</p> <p>Norwegian believed that T1 in its current state puts it at a competitive disadvantage to airlines serving the same routes from T2. It therefore supported these projects.</p> <p>Ryanair did not support these projects.</p> <p>Sky Handling supported T1 redevelopment in order to bring T1 up to the same standard as T2.</p> <p>While Stobart Air acknowledged a potential need for the redevelopment of T1 it does not believe T2 airlines should have to pay for it.</p> <p>Turkish Airlines supported the extra light this project would result in.</p>			
Fixed Electrical Ground Power T1 (15.7.103)	<p>British Airways supported this project for environmental and safety reasons.</p> <p>Flybe supported this project.</p> <p>Norwegian supported this project, citing improved efficiency.</p> <p>Ryanair supported this project but at a cost of 1m.</p> <p>Sky Handling did not support this as it would be in direct competition with mobile power services which it provides.</p>	y	1.5	We have allowed this project. However, the project put forward by DAA in its final CIP covers only pier 1, whereas some of the users supporting the project are located in piers 2 and 3. DAA have flexibility within this group should it wish to expand the project. Alternatively, given the level of support an extension could be brought to interim consultation.
Cargo Gate Redevelopment (15.6.021)	<p>British Airways supported this project.</p> <p>Ryanair did not support this project.</p>	y	1.8 D	We have allowed these projects to facilitate the efficient development of cargo handling facilities at the airport. Efficient cargo facilities are in line with the NAP. We have made the cargo gate redevelopment a deliverable.
Airport Screening Centre (15.6.022)	<p>British Airways supports this project.</p> <p>Ryanair supported this project but at a cost of 0.7m.</p>	y	.8	

Project (Code)	Representations Received	Draft	Final	Decision
Consolidated Staff Car Park (15.2.017)	British Airways supports this project. Ryanair did not support this project.	y	1.5	We have allowed this project to enable the efficient operation of staff car parking.
T2 HBS Standard 3 (15.4.003)	ACI believed this is needed for compliance; it stated support for a trigger. Aer Lingus believed this should be considered in the 2019 Determination. American Airlines and British Airways supported this project. Chambers Ireland believed this project should be allowed to ensure compliance with EU requirements. While not directly stating support for this project, the enterprise agencies stated that Dublin Airport should be given a capex allowance to comply with security standards in a timely manner. DAA stated that this equipment will need to be operational in T2 by September 2020, for regulatory compliance. In order to reach this deadline it needs to start the project in 2017. Etihad supported this project. IAA claimed this project is needed for security compliance. IATA did not believe this project is necessary until the next determination period. IBEC supported this project to ensure compliance. IEA supported this project. ITIC stated that we need to provide compelling evidence that this project is not needed to ensure security standard remain high. Norwegian supported this project, citing improved efficiency. Ryanair did not believe this project is necessary. Sky Handling supported this to ensure regulatory compliance. Westjet supported the acquisition of equipment for	n	13.1 T, D	We continue to believe that the regulatory need for this project will fall into the next determination period. However, to provide certainty to DAA that it will be remunerated, we have introduced a trigger for the project which is discussed in Section 7.

Project (Code)	Representations Received	Draft	Final	Decision
	regulatory compliance.			
Apron 300R (15.6.023)	<p>ACI supported this to encourage growth.</p> <p>British Airways did not support this project as the size of aircraft it can accommodate is limited.</p> <p>DAA stated this is needed in addition to the proposed apron 5G as the journey between the proposed bussing gates and 5G is too long.</p> <p>IAA supported this project, citing improved bus journey times compared to bussing to 5G.</p> <p>IATA did not support this, stating the additional stands from 5G are sufficient.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this as it would result in shorter bussing routes.</p> <p>Stobart Air supported this project, stating it would improve its operations at the airport.</p>	n	0	We have not allowed the €7.5m needed to construct this project. We believe the construction of apron 5G will add sufficient additional stands, and 300R does not represent an efficient development in the interest of current and prospective users.
IT				
IT DAA Technology & Lifecycle Management (15.8.008)	<p>British Airways supported this project.</p> <p>Ryanair supported this project but at a cost of 7m.</p>	y	15.9	We have allowed all IT projects. We believe that these projects are needed to maintain and improve efficient operations at the Airport. They include many individual projects which are in the interest of current and prospective users such as AVGDS.
IT Business Systems Investment (15.8.009)	<p>British Airways supported this project.</p> <p>Ryanair supported this project but at a cost of 8m.</p>	y	15.7	
Retail IT (15.5.002)	<p>British Airways supported this project.</p> <p>Ryanair supported this project but at a cost of 0.5m.</p>	y	1.6	
Business Innovation Investment (15.8.009c)	<p>British Airways supported this project.</p> <p>IALPA supported the introduction of <i>Advanced visual docking guidance systems</i> which is one of the components of this project.</p> <p>Ryanair supported this project but at a cost of 1m.</p>	y	8.1	
Landside Terminals Maintenance				

Project (Code)	Representations Received	Draft	Final	Decision
Light Fleet (15.4.002)	British Airways supported this project as an integral part of the airport development. Ryanair supported this project but at a cost of 1m.	y	2.2	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
Carpark Maintenance (15.3.004)	British Airways supported this project as an integral part of the airport development. Ryanair supported this project but at a cost of 1.5m.	y	4.5	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
External roads (15.3.035)	British Airways supported this project as an integral part of the airport development. Ryanair supported this project but at a cost of 1m.	y	2.0	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
Landside Infrastructure Utilities (15.3.001)	British Airways supported this project as an integral part of the airport development. Ryanair supported this project but at a cost of 2m.	y	4.6	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
T1 Roof Repairs / Upgrades (15.7.102)	British Airways believed the roof in T1 is very poor and requires attention. Flybe supported the refurbishment of T1 in order to make it comparable to T2 and other international airports. Ryanair supported this project but at a cost of 2m.	y	8.0	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
T1 Baggage Reconciliation System (15.4.005)	British Airways supported this project as it will improve baggage handling efficiencies. Flybe supported this project. Ryanair stated that this project should be introduced on a "user pays" basis. Westjet supported this project.	y	1.1	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
T1 Critical Equipment Upgrades (15.4.006)	British Airways supported this project, citing Pier 3 is in need of particular attention. Ryanair supported this project but at a cost of 4m.	y	6.0	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
HVAC & BMS Upgrades (15.7.104)	British Airways stated this is necessary to improve air conditioning. Ryanair supported this project but at a cost of 3.5m.	y	7.5	We have allowed this project as it benefits current and prospective users by facilitating the efficient

Project (Code)	Representations Received	Draft	Final	Decision
				development of the Airport.
Other				
Minor Projects (15.8.001)	British Airways supported this project. Ryanair supported this project but at a cost of 10m.	y	10.1	We have allowed this project as it benefits current and prospective users by facilitating the efficient development of the Airport.
Programme Management (15.8.200)	British Airways believed this is an unavoidable cost. Ryanair did not support this project.	y	3.5	We have allowed this project as an essential element for delivery of the capital investment program.
Revenue				
Retail Refurbishments (15.5.001)	British Airways supported this project. Ryanair believed that retail in Dublin Airport is relatively new and does not require refurbishment.	y	12.2	We continue to believe that retail refurbishments are necessary to protect revenue; therefore, in the interest of current and prospective users we have allowed this project.
Commercial Hanger Infrastructure (15.2.005)	British Airways supported this project. Ryanair did not support this project.	y	.6	These projects will be net contributors of revenue in the period 2015-2019 thus reducing airport charges and protecting the interest of current and prospective users. The car rental centre is no longer a deliverable; this increases the flexibility for reallocation within the group.
Cargo Terminal Development (15.2.007)	British Airways supported this project. Ryanair did not support this project.	y	2.2	
Digital Advertising Projects (15.2.010)	British Airways supported this project. Ryanair supported this project but at a cost of 0.4m.	y	1.0	
Commercial Property Refurbishments (15.2.013)	British Airways supported this project. Ryanair did not support this project.	y	10.6	
Long Term Car Park Resurface (15.3.006)	British Airways supported this project. Ryanair supported this project but at a cost of 2m.	y	6.7	
Consolidated Car Rental Centre (15.2.009)	British Airways supported this project. Ryanair did not support this project.	y, D	10.1	
Completion of T2MSCP (15.2.006)	British Airways supported this project. Ryanair supported this project but at a cost of 7m.	y, D	12.4 D	

Project (Code)	Representations Received	Draft	Final	Decision
				park's proximity to T2 and the current level of demand. Over its life the project should reduce airport charges; however, in 2015-2019 it will result in higher charges.
Runway				
House buy-out (15.6.019)	<p>Aer Lingus stated that the current infrastructure can handle 35mppa, therefore it believed no allowance for a parallel runway is needed in this Determination. It also raised concerns about the operational impact of decommissioning the cross wind Runway.</p> <p>IALPA sees no need for the parallel runway in the next decade and have serious concerns about the implications of decommissioning the cross wind runway. It claims 2,227 flights would have been diverted in December 2013 if the crosswind runway was not available.</p> <p>Ryanair has proposed an alternative method for calculating the trigger point. It uses slots utilisation across the whole year to derive a trigger point of 30mppa (with the existing runways capable of handling 34mppa). On costing, Ryanair stated the runway could be built for 50m.</p> <p>IATA argued the trigger should be based on movements not passengers.</p> <p>ACI, the enterprise agencies, Fingal Dublin Chamber, IAA, ICE, IEA, ITOA and the Maldron hotel all supported development of the Northern Runway sooner than the 25mppa trigger proposed in the Draft Determination. Many of these parties cited capacity constraints and the ability to reach an increased number of destinations as reasons for proceeding sooner. In addition IAA claimed that building now would benefit from reduced construction costs.</p>	T, D	246.7 T, D	To facilitate the efficient development of Dublin Airport which is in the interest of both current and prospective users we have maintained our trigger for the development of the Northern Parallel runway. We have given certainty to DAA than once demand for the second runway exists it will be remunerated for the cost of planning, house buyouts and construction up to the budget of €247m. The allowance of preparation work is in line with the NAP. The trigger is discussed in Section 7.
Planning and design fees (15.6.018)				
Northern Runway				
Trigger				

Project (Code)	Representations Received	Draft	Final	Decision
Pier 2 Segregation (15.7.111)	<p>British Airways supported this project which it believed will deliver improved flexibility in the airport.</p> <p>City Jet supported this project; it stated that the current situation is its main operational difficulty at Dublin Airport and argued it results in a poor product offering.</p> <p>DAA highlighted the communication it received from the Revenue Commissioners which requested DAA "include a capital expenditure business case to achieve this segregation as part of its capital expenditure proposals for the next determination period".</p> <p>IATA could not support this investment given the eventual need to replace the pier.</p> <p>ITIC supported improvements of gate areas associated with T1.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this, stating the current situation is "an embarrassment."</p>	n	18.1 T, D	We believe this project does not represent an efficient use of resources and is not in the interest of current and prospective users. This is a large investment in a pier which will need to be replaced in the medium term. However, we acknowledge that this may become a regulatory requirement should <i>Revenue</i> mandate it and so we have introduced a trigger for this project, discussed in Section 7.
T1 Check-in & Security (15.7.101)	<p>ACI supported this increase capacity and ensure QoS standard retained.</p> <p>British Airways saw some benefit from this project, however it would prioritise other aspects of T1 improvements.</p> <p>Chambers Ireland supported this project in order to improve the product offering and customer experience in T1.</p> <p>City Jet stated that airlines based at T1 are likely to contribute more to growth and so the extra capacity which would be provided by this project is needed.</p> <p>DAA believe this should be triggered with passenger numbers reach 11.5m at T1.</p> <p>Dublin Chamber supported this project, saying it would help bring T1 in to line with T2.</p> <p>Final Dublin Chamber stated that new security gates are needed to avoid passenger frustration and to cut queuing times.</p>	n	0	In the interest of protecting current and prospective users we do not believe this project (€38.1m) is necessary. We believe the current security screening area has sufficient capacity. In 2007 terminal one handled 23m passengers with 17 lanes across two security areas. The current security screening area has 14 lanes.

Project (Code)	Representations Received	Draft	Final	Decision
	<p>Flybe supported the refurbishment of T1 in order to make it comparable to T2 and other international airports.</p> <p>IAA supported this project to improve capacity of security screening.</p> <p>IATA did not support this as it claimed it “provides no measureable capacity enhancement.</p> <p>The Maldron Hotel supported this project as it would better align the experience guests have when staying at the hotel, with the experience they have when passing through security at the airport.</p> <p>Norwegian supported this project, stating the extra capacity will be needed.</p> <p>Ryanair argued that DAA should be required to undertake this project without remuneration, as moving security to the current area in T1 was not supported by users.</p> <p>Sky Handling supported this project, citing a better passenger experience.</p> <p>Turkish airlines supported improvements to check-in and security which would be part of this project.</p>			
<p>Extension to Runway (15.6.012)</p>	<p>ACI supported this to encourage growth.</p> <p>Chambers Ireland argued that this project should be allowed if the northern runway trigger is set above 23.5mppa.</p> <p>DAA argued this should be allowed if the trigger for the northern runway is above 23.5mppa.</p> <p>IEA supported this project, citing the ability to reach destinations which are outside of the reach of the existing runways.</p> <p>ITIC said this project would enable direct air services from emerging markets in the Far East.</p> <p>Ryanair did not support this project.</p>	<p>n</p>	<p>0</p>	<p>We do not believe this project, at a cost of €40m is in the interest of current or prospective users. Given that the length of the planned parallel runway is over 3000m (the length prescribed by the NAP) it would be an inefficient use of resources to extend 28/10.</p>

Project (Code)	Representations Received	Draft	Final	Decision	
Additional line-up points (15.6.013)	<p>ACI supported this to encourage growth.</p> <p>Aer Lingus supported the project but with a trigger on implementation.</p> <p>American Airlines supported this for efficiency reasons.</p> <p>British Airways supported this projects as it will increase capacity and reduce delays.</p> <p>Chambers Ireland argued that this project should be allowed if the runway trigger is set above 23.5mppa.</p> <p>DAA argued that this should be allowed if the trigger for the northern runway is above 23.5mppa.</p> <p>Etihad supported this project, citing improved airfield efficiencies.</p> <p>IAA supported this project as it would enable increased capacity of runway 10/28 and reduce airfield congestion.</p> <p>IBEC supported this project to improve congestion at peak times.</p> <p>Norwegian supported this project to improve airfield flexibility and capacity.</p> <p>Ryanair did not support this project.</p> <p>Sky Handling supported this project to reduce delays.</p> <p>Stobart Air argued that airlines should only have to pay for this project once it is operational.</p> <p>Turkish Airlines support this project, citing improved capacity and flexibility.</p>	n	30.2 T, D	Based on representations received we have introduced a trigger for this project, the trigger is discussed in Section 7. This project is consistent with maximizing use of existing facilities.	
Fuel Farm	<p>Ryanair argued that DAA should not be involved in this project.</p>	n	n	The current plan, as agreed by users, is to deliver this project with a "Design, Finance, Build, Operate, Transfer" scheme. Should that plan fail then DAA should consult with users on an alternative option.	
New Projects – added to CIP in DAA’s response to the Draft Determination					
	Central Search Equipment	This project was introduced by DAA in its response to the Draft Determination. It involves the replacement of end of life security equipment in T1.	n/a	2.7	We have allowed this project as we believe having functioning security screening equipment is in

Project (Code)		Representations Received	Draft	Final	Decision
					the interest of current and prospective users.
	CBP Business Lounge T2 MSCP Expanded Option	These projects were introduced by DAA in its response to the Draft Determination. Therefore other interested parties have not had the opportunity to review and comments on the projects.	n/a	0	These projects did not form part of the CIP consultations between users and DAA. Both of the revenue generating projects would result in an increased price cap. DAA has flexibility in the groups where these projects would fit, it therefore can use that flexibility to undertake these projects or hold interim consultations with users on the projects.

D: Deliverable. T: Triggered Project. y: Allowance made for project. n: No allowance made for project.

Appendix 6: Annuity Formula

1. DAA suggested that our current method for calculating annuities differs from the 2009 Final Determination in error and that this error is unfavourable to DAA. The claim is that the net present value (NPV) of cash flows from an asset does not equal the NPV of the initial investment.
2. There is a difference in annuities calculations between the 2009 model and the model for this Determination. In 2009 we used the inbuilt excel PMT function to calculate the allowed revenues from capex occurring during the period of the determination. This formula is an annuity calculation but it differs from our normal treatment of revenues. Our normal assumption is that revenues flow to DAA on a continuous basis rather than at the end of the year (arguably reflecting better the reality of how revenues from customers flow to DAA). In contrast the PMT function implicitly assumes that the revenues occur at the end of the year.
3. When we calculate the return on the RAB we multiply the average RAB for the year by the accounting rate of return: $WACC/(1+0.5*WACC)$.
4. Therefore when calculating a present value the discount rate used should also take account of revenues occurring not at the end of the year but continuously throughout the year. In practice this equates to the revenue flowing midway through the year. For the discount rate the formula should be $((1+WACC)^n)/(1+WACC)$, where n is the number of years to discount by. In effect, the revenues in year one are discounted by half a year, those in year 2 by 18 months and so on.
5. When the cash-flows in our model are discounted by the correct discount rate they equal initial investment.
6. The table below shows the correct discount rate to apply for a cost of capital of 5.8% and uses the example in Appendix 16 of DAA's response to show that the NPV of the total investment is zero.

Table A6.1: Annuity Formula

WACC	5.8%				
Year	1	2	3	4	5
Investment	13,107,450				
Revenue	3,006,568	3,006,568	3,006,568	3,006,568	3,006,568
Discount Rate	1.03	1.09	1.15	1.22	1.29
Discounted Revenue Flows	2,924,350	2,764,409	2,613,216	2,470,292	2,335,184
Sum of Discounted Revenue Flows	13,107,450				
NPV of all cash flows	0				

7. The use of the PMT formula in the 2009 model for capex in 2010-2014 resulted in a small gain to DAA during that period. However, the current model corrects this. Now, the discounted cash flows from the 2010-2014 investments, over their asset lives, equal the initial investment.

Appendix 7: List of Acronyms Used

ACI	Airport Council International
ATI	Access to installations
CAA	UK Civil Aviation Authority
Capex	Capital Expenditure
CAPM	Capital asset pricing model
CAR	Commission for Aviation Regulation
CER	Commission for Energy Regulation
CMA	UK Competition and Markets Authority
COGS	Cost of Goods Sold
CPI	Consumer Price Index
CUSS	Common Use Self Service
CUTE	Common Use Terminal Equipment
EBITDA	Earnings before interest, taxes, depreciation and amortization
EY	Ernst & Young
FFO	Fund from operations
GDP	Gross Domestic Product
IAA	Irish Aviation Authority
IATA	International Air Transport Association
IMF	International Monetary Fund
IT	Information technology
Mppa	Million passengers per annum
MSCP	Multi-storey car park
NAP	National Aviation Policy
Ofgem	Office of Gas and Electricity Markets, UK
Opex	Operating expenditure
Pax	Passengers
RAB	Regulatory asset base
S&P	Standard & Poor's
SDG	Steer Davies Gleave
T1X	Airside extension to Terminal 1
WACC	Weighted average cost of capital