



BAA Ltd

A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)

Members of the Competition Commission who conducted this inquiry

Christopher Clarke (*Chairman of the Group*)

Laura Carstensen

Dr John Collings

Professor Jonathan Haskel

Richard Holroyd

Professor Peter Moizer

Professor Puliyar Sudarsanam

Chief Executive and Secretary of the Competition Commission

Martin Stanley

Material has been omitted from the text of this report pursuant to section 45(4)–(7) of the Airports Act 1986. Omissions are indicated by the insertion of the symbol ✂ in the text.

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Glossary

Summary

1. Under the references made by the Civil Aviation Authority (the CAA) on 30 March 2007 (see Appendix A), we are required to recommend the maximum level of airport charges that Heathrow Airport Ltd (HAL) and Gatwick Airport Ltd (GAL) may levy during the period of five years beginning on 1 April 2008 (the fifth five-year period of regulation of the airports referred to as the fifth quinquennium or Q5). We are also required to consider whether either of the two companies has at any time during the period from 28 February 2002 (the date of the previous reference to us of these airports) to 30 March 2007 pursued a course of conduct (in relation to matters specified in the reference) which has operated or might be expected to operate against the public interest.
2. All the issued share capital of HAL and GAL is owned by BAA Ltd (BAA). Since our 2002 report, BAA plc (now BAA) has been acquired by Airport Development and Investment Ltd (ADI). ADI is a wholly owned subsidiary of FGP Topco Ltd (FGP Topco), in which Grupo Ferrovial SA (Ferrovial) has a majority holding.
3. We are also currently carrying out an inquiry under a reference sent to us by the Office of Fair Trading (OFT) on 29 March 2007 under the Enterprise Act 2002 into the supply of airport services in the UK by BAA, on which we are required to report by 28 March 2009. That reference requires us to investigate whether any feature, or combination of features, of the market or markets for airport services in the UK as exist in connection with the supply of airport services by BAA prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK. One of the features specified by the OFT which in its opinion adversely affected competition was joint ownership, including BAA's ownership of the designated London airports (HAL, GAL and Stansted Airport Ltd (STAL)), which is not an issue relevant to this inquiry. But there is potentially some overlap of issues between this inquiry and the market inquiry, although the legal framework for the two inquiries is quite different.
4. The current reference to the Competition Commission (CC) is only part of the quinquennial review process, the final determination of charges being by the CAA in the first quarter of 2008 after taking into account our recommendations and a further round of consultation with BAA, the airlines and other interested parties. Prior to making the current reference, the CAA encouraged a process of 'Constructive Engagement' between BAA and the airlines, with the aim of their reaching agreement on the main issues. That process has continued throughout the six months of our inquiry. During this period BAA has made substantial changes to its future capital expenditure (capex) programmes at both Heathrow and Gatwick. The scale of these increases in capex is surprising coming as they do at the very end of a lengthy process of consultation. There have also been significant increases during the reference in forecast operating expenditure (opex) (primarily to improve security service standards following significant increases in security requirements in 2006). It is unusual for there to have been so many substantial changes to key inputs into a pricing determination during the course of a CC inquiry. The consequence is that a number of them will require further detailed examination by the CAA before it can put forward its final proposals. There are also a number of other outstanding issues for consideration by the CAA.
5. There has been a wide variation in suggestions put to us for the maximum level of airport charges in Q5. The CAA recommended that we should consider indicative ranges for the maximum annual rate of increase in airport charges of between RPI+4 (that is, 4 per cent a year above the increase in the retail price index (RPI)) and

RPI+8 at Heathrow, and between RPI-2 and RPI+2 at Gatwick (there would in addition be a further increase in prices in the first year to reflect an increase in the scope of activities covered by airport charges at Heathrow and Gatwick). The maximum level of airport charges per passenger would on the basis recommended by the CAA and for consideration by us increase from £9.31 at Heathrow in 2007/08 to between £11.80 and £14.20 in 2012/13 (at 2007/08 prices). The maximum level of airport charges at Gatwick, £4.93 per passenger in 2007/08, would be between £4.60 and £5.60 in 2012/13 (ranging from a 6 per cent reduction to a 15 per cent increase over five years). BAA regarded these proposals as being unacceptably low, and proposed an increase in charges to £20.22 per passenger at Heathrow by 2012/13 and to £8.64 at Gatwick by the same date. Among the proposals from other parties, British Airways (BA) argued for a reduction in charges at both airports, with a formula of RPI-1.5 at Heathrow and RPI-4.4 at Gatwick.

6. The objective in setting a price cap is to provide a reasonable return on new and existing assets that make up the regulatory asset base (RAB)—in particular to provide for an appropriate level of new investment and a rate of return commensurate with the cost of capital necessary for such investment to be carried out—after allowing for regulatory depreciation, an efficient level of operating costs and the income expected to be generated from other activities.
7. A main determinant of the level of airport charges is the cost of capital. In its recommendation to us, the CAA presented provisional estimates of a real, pre-tax cost of capital at Heathrow of between 5.9 and 6.2 per cent, and at Gatwick of between 6.3 and 6.7 per cent. For the purposes of modelling the illustrative price cap, it used the figures at the top end of the range, 6.2 per cent at Heathrow and 6.7 per cent at Gatwick. BAA in its submission to us submitted a range for the real pre-tax cost of capital of 7.25 to 8.25 per cent. Our estimate for the cost of capital at Heathrow is a range of 4.8 per cent to 6.4 per cent and at Gatwick 4.9 per cent to 6.8 per cent. In recognition of the inherent uncertainties in any such estimates, and of the importance of not allowing a rate of return that is insufficient to generate necessary new investment that would be of significant benefit to airlines and passengers, we have adopted figures for the real, pre-tax cost of capital close to the top end of our range, specifically 6.2 per cent at Heathrow and 6.5 per cent at Gatwick. This is a lower cost of capital than recommended by ourselves and adopted by the CAA for Q4 but results from an exhaustive analysis of market and other evidence leading to changes in some of its key components, including lower relative market risk and higher levels of gearing.
8. Given increases in the capex programme under Constructive Engagement, we are assuming in our financial modelling a capex programme at Heathrow of £3,535 million in Q5. This is about 20 per cent higher than that assumed by the CAA (£2,929 million, at comparable 2007/08 prices) and by BAA in its first submissions to us in May 2007 (but we have adopted somewhat lower assumptions for construction price inflation than BAA). There are, however, still a number of remaining capex issues which the CAA will have to resolve. We have assumed an investment programme at Gatwick of £712 million which is almost two-thirds higher than the £434 million anticipated by the CAA and by BAA in its first submission to us in May 2007. As at Heathrow, the increase at Gatwick is the outcome of Constructive Engagement though an important difference remains between BAA and the airlines over the construction of a new pier. Consultants appointed by the CAA have provided some support for BAA's proposal, but the CAA will have to consider this further after consultation with BAA and the airlines. More generally, both we and the CAA's consultants have noted a number of important areas for improvement in BAA's planning of and consultation on capex which we recommend should be addressed.

9. During the inquiry, BAA told us that it would need to reconsider its investment programme if the regulatory settlement was based on what it regarded as an inadequate cost of capital. We see no reason for any such reduction in the investment programme, since we have based our recommended maximum level of airport charges on what we regard as a reasonable rate of return on capital that is close to the top of the range of our estimate of BAA's cost of capital and which fully takes account of the systematic risks facing each of the two airports. The risks of cost overruns on their capital investment programmes (CIPs) at the two airports is separately taken into account by BAA including a 25 per cent allowance over their estimated costs for each project. We therefore see no reason why BAA should not be able to finance its capex programme. We have also recommended enhanced capex triggers, in which part of the allowable airport charges is contingent on the implementation of and progress on the capex programme envisaged against specified milestones. These triggers are one of a number of means to ensure that airport charges are set on the basis of a capex programme that is actually carried out; so were some projects not carried out, charges would be reduced accordingly.
10. We have recommended that the RAB should be reduced by the value of the sale of a site for the development of a hotel adjacent to Terminal 5 at Heathrow; and that there should also be a reduction in the RAB for the value of the pension fund holiday taken by BAA in the 1997/98 to 2002/03 regulatory period. This should prevent users being charged twice for the pension costs relating to that period. We have assumed higher commercial revenues than put forward by BAA, since we believe it reasonable to expect that BAA's commercial activities will benefit at Heathrow from the significant enhancement in passenger experience from Terminal 5 and the resulting additional retail space at the airport, and at both airports from the measures BAA is planning to take to reduce the current problems of security queuing. These developments result from the significant levels of capex and opex reflected in our assessment of the level of airport charges. We have assumed lower opex than BAA, but a somewhat higher level than by the CAA, partly reflecting recent increases in security costs. We have also assumed slightly higher traffic forecasts than BAA at Heathrow.
11. On the basis of the above assumptions, we have recommended:
 - (a) At Heathrow: a maximum opening yield of airport charges per passenger of £10.19 (at 2007/08 prices) with charges subsequently increasing at no more than RPI+7.5.
 - (b) At Gatwick: a maximum opening yield of £5.50 (at 2007/08 prices) with charges subsequently increasing at no more than RPI-0.5.
12. A number of complaints were put to us that the airports have pursued a course of conduct against the public interest, some of which, including those relating to the financial structure of BAA following its acquisition by ADI, are more appropriately considered in the market inquiry. Particular concern was expressed about standards of service at the two airports.
13. We concluded in our 2002 report that HAL and GAL had pursued a course of conduct contrary to the public interest, by failing to make prices paid sufficiently reflect the level of service provided. We recommended the introduction of a service quality rebate (SQR) scheme to remedy the adverse effects on users. Despite the operation of the scheme, we have received strong criticisms of quality of service, particularly at Heathrow. We are also aware of recent public criticisms of passenger experience at both airports, although we acknowledge these cannot be blamed solely on BAA. They result to some extent from the performance of other service providers at the airports, both public and private sector, and from new security arrangements

introduced from August 2006 onwards. But important aspects of BAA's performance have been poor, and the SQR scheme now needs to be extended and strengthened to cope with the significant changes in requirements that have since been introduced. Among the weaknesses in the SQR scheme are the omission of key aspects of performance, including maximum lengths of security queues, and the security arrangements for transfer passengers, airline staff and perimeter control points where performance has been particularly poor and to the detriment of airlines and passengers; the measurement systems adopted; and the need to strengthen some of the current targets used.

14. We consider that HAL and GAL have displayed the same failings in the last five years as identified in our 2002 report. In particular they have failed to manage security queuing and queue times to avoid unacceptable delays to passengers, crew and flights and consequently have not furthered the reasonable interests of the users of Heathrow and Gatwick. We consider that these effects adverse to the public interest can be remedied or prevented by the extension of the existing conditions and/or by the imposition of new conditions as detailed in the main body of our report.
15. The maximum levels of airport charges we have recommended are significantly below those put forward by BAA but above those proposed by the airlines (though the latter were before the increases in the capex programme resulting from Constructive Engagement). In our view, the increased charges will enable BAA to implement its plans significantly to improve the facilities and levels of service at both airports for the benefits of airlines, passengers and other airport users.

Report

1. The reference

- 1.1 Under the references made by the CAA on 30 March 2007 (see Appendix A), we are required to investigate and report on the maximum amounts that should be capable of being levied by way of airport charges (referred to hereafter as the maximum level of airport charges) by HAL and GAL during the period of five years beginning on 1 April 2008. We are also required to consider whether either of the two companies has at any time during the period beginning with 28 February 2002 (the date of the previous reference to us of these airports) and ending with the date of this reference pursued a course of conduct which has operated or might be expected to operate against the public interest in relation to any airport charges levied by them at the airports; or in relation to any operational activities carried on by them at the airports and relating to the airports; or in relation to the granting of a right by virtue of which any operational activities relating to the airports may be carried on by any other person or persons. We also have to consider whether there has been any similar conduct (although not in relation to airport charges) by any associated company. Should we conclude that either of the airport companies or any associated company has pursued a course of conduct against the public interest, we also have to consider whether the effects adverse to the public interest which the course of conduct has had, or might be expected to have, could be remedied or prevented by the imposition of any conditions in relation to the airports or by the modification of any conditions already in force in relation to the airports. We were required to report by 29 September 2007.
- 1.2 All the issued share capital of HAL and GAL is owned by BAA. BAA also operates, through wholly-owned subsidiaries, airports at Aberdeen, Edinburgh, Glasgow, Southampton and Stansted. Since our 2002 report, BAA plc (now BAA Ltd) has been acquired by ADI. ADI is a wholly-owned subsidiary of FGP Topco, in which Ferrovial has a majority holding.¹
- 1.3 We are also currently carrying out an inquiry under a reference sent to us by the OFT on 29 March 2007 under section 131 of the Enterprise Act 2002 (the Enterprise Act) into the supply of airport services in the UK by BAA, and on which we are required to report by 28 March 2009. That reference requires us to investigate whether any feature, or combination of features, of the market or markets for airport services in the UK as exist in connection with the supply of airport services by BAA prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK. A feature can relate to the structure of the market, or conduct of any supplier or customer of any supplier in that market. If so, there is an 'adverse effect on competition' (AEC). If the CC decides that there is an AEC, it is required under section 134(4) of the Enterprise Act to decide whether action should be taken by it, or whether it should recommend the taking of action by others, for the purpose of remedying, mitigating or preventing the AEC concerned or any detrimental effect on customers so far as it has resulted from, or may be expected to result from, the AEC; and, if so, what action should be taken and what is to be remedied, mitigated or prevented. One of the features specified by the OFT which in its opinion adversely affected competition was joint ownership, including BAA's joint ownership of the designated London airports (HAL, GAL and STAL), with very high regional market shares (the other two features it identified being regulation and development restrictions). This is not an issue relevant to the current inquiry

¹The other two shareholders are Airport Infrastructure Fund LP, which is managed by Caisse de dépôt et placement du Québec (CDPQ), and Baker Street Investment Pte Ltd, a subsidiary of GIC Special Investments Pte Ltd (GICSI).

which is restricted to airport charges and whether there have been any courses of conduct which adversely affect the public interest, in the context of the current structure of the BAA.

- 1.4 There is, however, potentially some overlap of issues between this inquiry and the market inquiry, although the legal framework for the two inquiries is quite different. Some of these common issues are more appropriately considered in the market inquiry, for example if they do not fall within the scope of any preferable or possible remedies under the Airports Act 1986 (the Act), or if they also apply to other BAA airports, or if our investigation into them would benefit from the longer time available to us under the market inquiry.
- 1.5 We have received a considerable volume of evidence from the CAA, BAA, airlines and others. Much of this evidence is set out on the CAA's website for the quinquennial review (www.caa.co.uk/default.aspx?catid=78&pagetype=90&pageid=67) and our own website for this inquiry (www.competition-commission.org.uk/inquiries/ref2007/heathrow/index.htm).

2. Background

- 2.1 The Act is unique among regulatory statutes in requiring a reference to be made to the CC every five years before the maximum level of airport charges of 'designated' airports (Heathrow, Gatwick and Stansted, all owned by BAA, and Manchester Airport, still owned by local authorities) is set.² In other regulatory statutes, a reference to the CC is only made in the event of that regulator's decision being disputed by the regulated company. In the case of airports, we have to consider any recommendations and other evidence put to us by the CAA, and then in turn make recommendations to the CAA, which has then to consider our recommendations before issuing its final determination, which it is due to do for Heathrow and Gatwick Airports for Q5 in March 2008. The Act is also unique in requiring the CC as part of the reference into airport charges to consider whether the regulated company acted against the public interest. Should we identify any courses of conduct adverse to the public interest, we have to consider recommendations as to how those adverse effects can be remedied: the CAA is obliged to take action to remedy the adverse effects, but not necessarily the action we recommend.
- 2.2 The House of Commons Transport Committee concluded in a November 2006 report on the work of the CAA that the institutional model for the economic regulation of airports was anomalous. It recommended that, as of the next price control review, the Government implement its own 1998 proposals to make CAA airport review decisions subject to the standard regulatory model, in which the CAA would reach airport price control decisions based on its own review and the airports, as the regulated organizations, would in the case of dispute have the right to a reference to the CC.³ In its response in March 2007, the Department for Transport (DfT) said that economic regulation should be appropriate and proportionate, and in large part depended upon the nature of the market failure that it was designed to address. It said that the airports market could be significantly altered by the outcome of any market reference to the CC, and consequently it would not be appropriate to respond to the Committee's Recommendations on regulatory change at that time. As noted in

²The CAA can extend the regulatory period by up to one year, to a maximum of six years, as it did with BAA's regulatory period from 1 April 1997, and as it has done with the current regulatory period from 1 April 2003 for two of the designated airports, Manchester and Stansted. In the case of Stansted, this was because of the review being carried out by the Department for Transport (DfT) of whether it should be de-designated.

³A report by the House of Common Transport Committee, *The Work of the Civil Aviation Authority*, Thirteenth Report of Session 2005/06, HC 809, published on 8 November 2006.

paragraph 1.3, regulation was a further feature identified by the OFT as in its view leading to an AEC. We may ourselves wish to comment on the current system of regulation, anomalous as it may well appear to be, in our report on the market inquiry, including other respects in which the regulatory system differs from that of other regulated industries. There is for example no 'economic' licence: nor any requirement to meet demand, to invest or to maintain an adequate financial structure to allow investment.

2.3 The Act confines price regulation to 'airport charges', defined as:

(a) charges levied on operators of aircraft in connection with the landing, parking or taking off of aircraft (including charges that are to any extent determined by reference to the number of passengers on board the aircraft, excluding charges payable by virtue of section 73 of the Transport Act 2000 (charges for services)⁴ and penalties payable by virtue of section 38C and 78A of the Civil Aviation Act 1982; and

(b) charges levied on aircraft passengers in connection with their arrival at or departure from the airport by air.

2.4 The nature of the charges that fall within the definition of airport charges varies from airport to airport. At the BAA London airports, all the charges regarded as airport charges are set out in the Conditions of Use and have three components: charges on landing, charges on departing passengers and aircraft parking charges. The landing charges are differentiated by time (with higher charges at peak times), aircraft size (with larger aircraft paying more off-peak) and noise characteristics (with aircraft in higher noise categories paying more) and an emission element (based on the NOx rating). Passenger charges, which account for between 70 and 75 per cent of airport charges at the two airports, are levied on airlines per departing passenger, and are lower for domestic passengers than international passengers. Aircraft parking charges are higher at peak times and include a weight-related element.

2.5 The requirement to consider the public interest extends beyond airport charges to courses of conduct in relation to the 'operational activities' of the designated airports:

(a) Operational activities, in relation to an airport, are defined as any activities that are carried on wholly or mainly for the benefit of users of the airport; or the revenues from which are wholly or mainly attributable to payments by users.

(b) Users are defined as a person for whom any service or facilities falling within the definition of relevant activities in section 36(1) are provided at the airport; or a person using any of the air transport services operating at the airport.

(c) Relevant activities are defined as the provision at the airport of facilities for the purposes of the landing, parking or taking off of aircraft; the servicing of aircraft (including the supply of fuel); and the handling of passengers or their baggage or of cargo at all stages while on airport premises (including the transfer of passengers, their baggage or cargo to and from aircraft). The definition does not include the provision of facilities for car parking, for the refreshment of passengers or for the supply of consumer goods.

⁴These relate to charges for air traffic services. In July 2007, decided from 1 April 2008 to end direct charging by NATS for aerodrome navigation services at Heathrow and Gatwick, for which NATS would instead charge the airports; but NATS En Route Limited would continue to charge aircraft operators directly for approach services.

It follows, for example, that an operator of a café for air travellers at an airport is engaged in operational activities, but is not a user of the airport. Further instances of operational activities are activities carried out for passengers at airports, such as retailing and catering; and activities carried out for airlines, such as rents of check-in desks and offices and licences for services such as baggage handling.

- 2.6 The precise list of what is covered by airport charges has, however, been largely a matter of ‘custom and practice’, supplemented by various lists of activities reproduced in CC reports. Charges for some activities crucial for airline operations at an airport—check-in desks and some of the baggage infrastructure, for example—are not subject to regulation, but covered out of separate charges (such as check-in desk rentals) to the respective airlines. They have been a regular source of complaint under the public interest provisions of the references. As discussed further below, the current review has considered a number of changes to the scope of activities covered by airport charges.
- 2.7 Moreover, even though not subject to regulation, expected income from unregulated activities has previously been taken into account in setting the level of airport charges such that the airport operations as a whole, including services to airlines and commercial activities such as retail and parking, would make no more than a reasonable rate of return. This is known as the ‘single-till’ principle. The profits from such activities, in particular some of the highly profitable commercial activities, has in effect been used to reduce the level of airport charges to airlines. At the last review in 2002, the CAA initially proposed to depart from the single-till approach, raising airport charges over the longer term by over £3 billion net present value (NPV), but subsequently followed the CC’s recommendation to retain the single till approach.

The statutory criteria

- 2.8 The Act specifies that the CAA must perform its functions relating to the economic regulation of airports, in the manner which it considers best calculated:
- (a) to further the reasonable interest of users of airports within the UK;
 - (b) to promote the efficient, economic and profitable operation of such airports;
 - (c) to encourage investment in new facilities at airports in time to satisfy anticipated demands by the users of such airports; and
 - (d) to impose the minimum restrictions that are consistent with the performance by the CAA of these functions.

In performing these functions the CAA is also required to take into account such of the international obligations of the UK as may be notified to it by the Secretary of State for Transport (the Secretary of State).

- 2.9 We are explicitly required to have regard to the above objectives in considering the public interest. In considering any matter relating to the granting of a right by virtue of which any operational activities may be carried on, we are also required to have regard to an additional objective, namely the furtherance of the reasonable interests of persons granted such rights. The Act does not explicitly require the CC to have regard to those objectives in recommending the maximum level of airport charges. However, such a recommendation is a recommendation as to how the CAA should perform its functions and, accordingly, we have also had regard to the CAA’s duty to act in the manner which it considers best calculated to achieve its objectives, and to

its duty to take account of notified international obligations, set out in paragraphs 3.15 to 3.19 of the CAA's December 2006 proposals.

The airports

2.10 As shown in Table 1, the three BAA London area airports, of which only Heathrow and Gatwick are the subject of these regulatory references, account for 91 per cent of all passengers using the London area airports. For completeness the table also shows that the seven BAA airports in the UK, all of which are the subject of the market inquiry, account for 63 per cent of all passengers using UK airports.

TABLE 1 Terminal passengers, 2006

			'000	
	BAA	Other	Total	BAA %
<i>London area</i>				
Heathrow	67,339			
Gatwick	34,080			
Stansted	23,680			
London City		2,358		
Luton		9,415		
Southend		30		
Total London	125,099	11,803	136,902	91
<i>Scotland</i>				
Glasgow	8,820			
Edinburgh	8,607			
Aberdeen	3,163			
Prestwick		2,395		
Other Scotland		1,451		
Total Scotland	22,041	3,846		85
<i>Other England, Wales, Northern Ireland</i>				
Southampton	1,913			
Other UK		70,437		
Total UK	149,053	86,086	235,139	63

Source: CAA UK Airports Statistics.

2.11 The characteristics of Heathrow and Gatwick also vary significantly in ways other than their size.

2.12 Heathrow is almost entirely used by scheduled aircraft. 35 per cent of passengers are travelling in the course of business and 35 per cent of passengers using Heathrow change plane at Heathrow, both percentages being significantly above those of Gatwick. Just over one-half of passengers (54 per cent) at Heathrow are non-UK residents.

(a) With only two runways, which is exceptional if not unique, for such a large airport, runway capacity is 98.5 per cent utilized with considerable excess demand at most times, even though demand is restricted by various air services agreements limiting the airlines able to operate on certain routes; yields are also significantly above those of Gatwick. The recent 'Open Skies' agreement with the US government, allowing airlines to use Heathrow for services to the USA, is likely to increase excess demand further.

(b) There continues to be a requirement for considerable investment to meet growth in demand as a result of the expected increase in passengers per aircraft movement (likely to be further encouraged by the Open Skies agreement with the USA). The costs of the current Terminal 5 development will be over £4 billion and

BAA is planning to spend over £1 billion on redeveloping the central terminal area (CTA) after Terminal 5 opens.

(c) The December 2006 progress report on the 2003 Air Transport White Paper *The Future of Air Transport* announced consultations on mixed mode at Heathrow,⁵ and on construction of a third runway and associated terminal developments when environmental concerns, including concerns about air quality, can be satisfied.

2.13 Gatwick has a different business model from Heathrow. 83 per cent of passengers are leisure, the largest proportion of leisure travellers at any London airport. Just over one-quarter of passengers are on charter flights, but this is a declining market due to the growth of the low cost, sometimes termed 'no frills' carriers (which now account for over 30 million passengers a year at the London airports, including the bulk of traffic at Stansted). A large majority of passengers (73 per cent) are UK residents. 16 per cent of passengers change plane at Gatwick. The Open Skies agreement may see some existing operations transferring to Heathrow but if this occurs it is expected they will rapidly be replaced by other services. Given the higher proportion of leisure passengers, Gatwick traffic is more seasonal than Heathrow (runway capacity currently being about 94 per cent used in summer and 84 per cent in winter), but Gatwick is full at peak times in both summer and winter. The investment programme is relatively modest, less than one-quarter that of Heathrow (see paragraphs 4.2, 4.3 and 4.5) although a higher percentage when compared with the RAB. Scope for expansion at Gatwick is limited with only one runway and with an agreement between BAA and West Sussex County Council not to start work on another runway until 2019.

2.14 The revenues, costs and profitability of Heathrow and Gatwick in 2006/07 are summarized in Table 2.

TABLE 2 Revenues, costs and profitability of Heathrow and Gatwick, 2006/07

	<i>£ million</i>	
	<i>Heathrow</i>	<i>Gatwick</i>
Airport charges	580	164
Other income	616	213
Total income	1,196	377
Opex	600	225
Depreciation	197	70
Total costs	797	296
Regulatory return	399	81
Wtd average basic RAB	8,204	1,465
Return on the RAB (%)	4.9	5.5

Source: Draft regulatory accounts.

Note: The basic RAB is before deducting from the Heathrow RAB the value of revenue advanced from Q5 to Q4 (see paragraph 2.16(d)).

2.15 Airport charge revenue per passenger at Heathrow and Gatwick in 2006/07 was £8.61 and £4.76 respectively. Airport charges at both airports accounted for a little less than one-half of the respective total revenues.

⁵The two runways are currently mostly operated in segregated mode, alternative runways being used for either take-offs or landings (but not both) for particular periods of a day: mixed mode would allow take-offs on either runway to be interspersed with landings and vice-versa, increasing capacity at peak periods but extending noise throughout the day to areas overflowed.

Previous inquiries

2.16 The five-year period from 1 April 2008 (2008/09 to 2012/13) for which we are required to recommend the maximum level of airport charges is the fifth period of regulation of the two airports, and is referred to as Q5 (the fifth quinquennium). The Government set the price controls for the first regulatory period following privatization in 1987 without a reference to the CC. For the second and third regulatory periods, reductions in real terms in the main element of airport charges were recommended by us (and, broadly, implemented by the CAA), but in the most recent quinquennium (Q4) at Heathrow there has been a real increase in charges:

(a) At the time of privatization in 1987, the Government decided that BAA's London airports would best be regulated by an incentive-based system centred on an RPI-X price control formula which for Q1 (1987/88 to 1991/92) was set for Heathrow and Gatwick separately and for the three airports as a whole at RPI-1 (ie charges being increased in any one year by no more than the change in RPI less 1 per cent).

(b) For Q2, the CAA set separate caps for Heathrow, for Gatwick and for the system as a whole each of: RPI-8 (1992/93), RPI-8 (1993/94), RPI-4 (1994/95), RPI-1 (1995/96) and RPI-1 (1996/97).

(c) For Q3 (1997/98 to 2002/03, the period and the charging formula being extended by a year before the next review) there was a formula of RPI-3 for Heathrow and Gatwick combined for each of the five years, and a formula of RPI+1 for Stansted. Given the single till approach (see paragraph 2.7), there was also provision for an increase in airport charges to offset the effect on the overall revenues of the airports of the loss of the intra-EU duty-free concession when this occurred (there had been a similar provision for Q2, during which, however, it had proved unnecessary).

(d) For Q4 (2003/04 to 2007/08, also referred to as the current quinquennium), there were formulae of RPI+6.5 at Heathrow and RPI at Gatwick. The CC report also projected that charges at Heathrow would continue to increase at the same rate in Q5, but with a moderate increase of RPI+1.8 in charges at Gatwick in Q5. These projections included an element of 'smoothing' of charges over the ten years of Q4 and Q5 which involved some advancement of revenues at Heathrow from Q5 to Q4, in order to avoid a sharp increase in charges (of as much as 80 per cent) that would otherwise have occurred when Terminal 5 became operational. However, the report made clear that it would be for the next review to decide on the appropriate approach for Q5.

2.17 The reductions in the main element of airport charges shown above were partly offset by the impact of additional security costs which, beyond a threshold amount, have been subject to an additional cost pass-through mechanism (termed the S-factor).

2.18 In the early period after privatization, growth in demand at Heathrow and Gatwick was largely met by relatively limited investment (incremental additions to runway, apron and terminal capacity rather than new runways or terminals) but with the disadvantage of runway congestion, delays in peak periods and overcrowded terminals if there was disruption. The Gatwick North Terminal was opened in 1987, shortly after privatization, but the only other new terminal built in the first three quinquennia was at Stansted and it was initially largely unused given the ability to handle growth by the incremental investment schemes at the other two airports. The changes in the Government's traffic distribution rules also affected Stansted. The

increasing problem of inadequate terminal capacity at Heathrow was exacerbated by protracted delay in receiving planning permission for Terminal 5.

- 2.19 Following the reductions in airport charges in the first three quinquennia, charges at both Heathrow and Gatwick were by the time of the CC's 2002 report relatively low compared with those of other international airports. Our 2002 report quoted a comparison of charges for a small sample of illustrative aircraft movements, which showed Heathrow to be the 35th most expensive international airport out of 50 compared, and Gatwick the 49th. As shown in Table 3, by 2006, Heathrow was the 19th and Gatwick the 43rd most expensive such airport out of 50 compared. There are, however, a number of alternative means of comparing the level of airport charges. As also shown in Table 3, other available comparisons show Heathrow ranks 14th and Gatwick 32nd of 50 airports or airport groups in terms of aeronautical revenues per passenger. But they rank somewhat higher—5th and 19th respectively—in terms of total revenues per passenger, since both airports are in the top five of the airports compared in generating commercial revenues per passenger. Any such international comparisons, however, can reflect a wide range of factors such as differences in traffic mix between airports, different accounting and regulatory regimes and exchange rates.

TABLE 3 Comparisons of airport charges

<i>Airport charges index 2006</i>			<i>Aeronautical revenue per passenger</i>		<i>Total revenue per passenger</i>	
<i>Airport</i>	<i>Index</i>		<i>Airport</i>	<i>Index</i>		<i>Index</i>
1	Toronto	100	Osaka	350	Osaka	328
2	New Jersey–EWR	91	Tokyo Narita	325	Tokyo Narita	271
3	Athens	74	Vienna	155	Athens	165
4	Vancouver	69	Toronto	148	Aeroports de Paris	149
5	New York–JFK	67	Fraport	148	London–Heathrow	143
6	Osaka	65	Finnish Airports Group	147	Hong Kong	133
7	Mexico City	65	Aeroports de Paris	139	Vienna	131
8	Amsterdam	61	Amsterdam Group	138	Zurich	131
9	Vienna	58	Zurich	138	Amsterdam Group	129
10	Moscow Sheremetyevo	55	Brussels	135	Finnish Airports Group	127
11	Paris–CDG	55	San Francisco	125	Brussels	126
12	Zurich	54	Birmingham	125	Munich	120
13	Frankfurt	54	Manchester	117	Fraport	117
14	Sydney	53	London–Heathrow	115	Oslo	115
15	Warsaw	52	Hong Kong	114	Birmingham	113
16	Prague	51	Athens	112	Manchester	113
17	Tokyo	51	Copenhagen	111	Copenhagen	106
18	Brussels	51	Stockholm	110	[BAA Group]	106
19	London–Heathrow	50	Swedish Airports Group	107	London–Gatwick	105
20	Dusseldorf	50	Aeroports de Montreal	106	Geneva	104
21	Stockholm	50	Oslo	105	San Francisco	104
22	Munich	49	Geneva	103	Aeroporti di Milano	103
23	Lisbon	47	Munich	98	Aeroports de Montreal	102
24	Berlin	46	BAA Group	94	Toronto	102
25	Washington	45	Berlin Group	93	Berlin Group	101
26	Chicago	45	Aeroporti de Roma	92	Aeroporti de Roma	100
27	Copenhagen	45	Miami	88	Miami	100
28	Seoul	45	ANA	87	Singapore	100
29	Budapest	43	Vancouver	84	Washington Dulles	89
30	Los Angeles	43	Aeroporti di Milano	84	Stockholm	86
31	Miami	42	Calgary	78	Swedish Airports Group	79
32	Oslo	41	London–Gatwick	77	ANA	79
33	Milan–MXP	38	Auckland	75	Auckland	78
34	Rome	38	Singapore	73	Vancouver	77
35	Helsinki	37	Sydney	73	Sydney	74
36	San Francisco	37	Johannesburg	68	Washington National	73
37	Sao Paolo	36	Chicago O'Hare	64	Ontario	71
38	Beijing	35	Washington Dulles	60	Perth	70
39	Madrid	33	ACSA	58	Johannesburg	63
40	Dublin	32	AENA	58	Calgary	58
41	Bangkok	30	Los Angeles	54	Los Angeles	57
42	Jeddah	30	Perth	53	ACSA	54
43	London–Gatwick	29	Airports of Thailand	51	Melbourne	52
44	Taipei	26	Cape Town	49	Airports of Thailand	47
45	Singapore	26	Melbourne	42	AENA	47
46	Johannesburg	25	Washington National	40	Brisbane	47
47	Hong Kong	25	Brisbane	35	Chicago O'Hare	45
48	Kuala Lumpur	21	Ontario	35	Cape Town	44
49	Mumbai	18	Malaysian Airports	35	Atlanta	32
50	Dubai	17	Atlanta	24	Malaysian Airports	31

Source: TRL Review of airport charges 2006; TRL Airport Performance Indicators 2005.

2.20 The existing terminals at Heathrow have now reached (or exceeded) their maximum capacity, hence the construction of Terminal 5 at a cost of over £4 billion. As discussed in paragraph 4.1, capex is a main factor relevant to the setting of airport charges. First, the RAB, on which a return is provided, is increased by assets in the course of construction; and secondly when the assets come into use, they are subject to depreciation charges. There may also be higher operating costs associated with an increase in airport capacity. The increase in costs associated with the Terminal 5 development was therefore a main factor in the higher charges for Heathrow that were allowed in Q4. Redevelopment of the central area at Heathrow (the current plans for which are shown in Appendix B), at a cost of over £1 billion, may also require further increases in charges, as may any third runway/sixth terminal

development. The cost of building at Heathrow is high (compared with Gatwick and Stansted) owing to the lack of space, congestion and need to keep existing terminals working while they are improved—hence the importance of the one-off chance to redevelop some of the existing terminals, given spare capacity following airline moves when Terminal 5 opens. As noted above, however, there are no equivalent projects at Gatwick, although a significant investment programme over Q5 is currently envisaged as necessary by BAA and the airlines.

- 2.21 As shown in Table 4 (and in more detail in Tables 1 and 2 of Appendix K), the return on the RAB in Q4 is below that estimated when the current charging formula was set. (In the previous quinquennium returns had been somewhat above their expected level.)

TABLE 4 Comparison of actual and predicted return on RAB for HAL and GAL in Q4

	Operating profit as % of regulatory value					
	HAL			GAL		
	Actual	Projected	Differences	Actual	Projected	Differences
2003/04 (actual)	7.36	8.10	-0.7	5.7	6.3	-0.6
2004/05 (actual)	6.70	7.40	-0.7	6.2	7.3	-1.0
2005/06 (actual)	5.76	6.70	-0.9	4.9	8.0	-3.1
2006/07 (actual)	4.90	6.50	-1.6	5.5	8.4	-2.9
2007/08 (forecast)	3.70	6.10	-2.4	4.4	7.6	-3.3

Source: Tables 1 and 2 of Appendix K.

- 2.22 Of the reasons for this under-recovery, Appendix A of the CAA's December 2006 proposals showed for the first three years of Q4 lower traffic volumes than forecast at Heathrow and Gatwick; some under-recovery of charges; higher opex; and, particularly at Heathrow, higher capex, primarily from re-profiling of Terminal 5 costs (although capex is likely to be lower than expected at Gatwick over Q4 as a whole). Of these factors, higher opex, for example, reduced return on the RAB at Heathrow by an average of some 0.7 per cent over the first four years of Q4.
- 2.23 During the course of previous inquiries, the CC has also received a wide range of public interest complaints, and made a number of adverse findings in its reports on some of them:
- (a) in the 1991 report, provision of inadequate information on the basis of charges to airlines not included in airport charges;
 - (b) in the 1996 report, charges for airside licences for airline catering and cleaning services supplied from off the airport; restrictions on the use of employment agency staff at Heathrow and sale of airline tickets at Gatwick; and failure to allow prominent positioning of information desks other than at very high rentals; and
 - (c) in the 2002 report, the failure of HAL and GAL to make prices paid sufficiently reflect the levels of service provided. On the latter, we recommended that HAL and GAL be required to pay specified rebates to the airlines whenever their quality of service failed to meet such performance standards as may from time to time be specified by the CAA together with other requirements relating to the operation of the BAA's Quality of Service Monitor (QSM) (which we discuss in more detail in Appendix L and paragraph 6.27 et seq below). There was also an adverse finding on aspects of the imposition of a levy on taxi drivers at Heathrow.

- 2.24 Following the adverse public interest finding of the 2002 report relating to service levels, referred to in paragraph 2.23(c), an SQR regime was introduced which includes a Statement of Standards and Rebates. As discussed in more detail in Appendix L, there are rebates of up to 1.5 per cent of airport charges for services to airlines (ie equipment availability and serviceability and security queuing), 0.5 per cent for services to passengers measured by QSM scores and 1 per cent for aerodrome congestion. The first two are calculated terminal by terminal.
- 2.25 As we discuss in more detail in paragraph 6.29 and Appendix L, however, significant increases in security requirements in the last two years have resulted in serious problems in quality of service at both airports, in the operations not only of BAA but also of other operators at the airports, including the airlines and public sector bodies such as the Border and Immigration Agency, exacerbated by the excess demand on airport capacity. We referred in our Statement of Issues on the market investigation, published on 9 August 2007, to the widespread public criticisms of service levels, particularly the length of security queues following the introduction of additional security requirements in the last two years, and we have also received a number of complaints from users about poor quality of service and facilities.

Process of current Q5 review

- 2.26 The current reference to the CC is only part of the quinquennial review process:
- (a) The CAA first consulted on the regulatory reviews (then including Stansted), in a document setting out lessons from the previous review, in December 2004.
 - (b) In May 2005, it encouraged a 'Constructive Engagement' process between the three airport companies and the airlines, with the aim of their reaching agreement on some of the main issues: in particular traffic forecasts, service quality, capex, and non-regulated charges. That process has continued during our inquiry, with reports being issued by both the Heathrow and Gatwick Joint Steering bodies in mid-July 2007, but with some remaining areas of disagreement and discussions continuing on many points of detail. (At Stansted, in contrast, there was little meaningful Constructive Engagement.)
 - (c) The CAA issued further papers on process and policy in late 2005 and the first half of 2006, and also commissioned a number of consultants' studies, but the process became delayed by the ADI/Ferrovial acquisition of BAA, after BAA's plans were reconsidered by its new owners.
 - (d) BAA submitted a series of papers to the CAA. Its regulatory submission of September 2006 gave the following price paths for Heathrow and Gatwick (and, for completeness, Stansted):

TABLE 5 **BAA possible price formulae**

	<i>Pre-tax real return, Q5 + Q6 %</i>	Q5	Q6
Heathrow	7.75	RPI+12.25*	RPI-4.75
Gatwick	7.75	RPI+2.75	RPI+0.5
Stansted	8.11	RPI+4.45	RPI+4.45 to 20015/16, then RPI

Source: BAA.

*With an additional +S in 2009/10.

On the basis of the BAA submission to the CAA, by the end of Q5, in 2012/13, charges at Heathrow would be almost 80 per cent higher per passenger than at the end of Q4.

2.27 In December 2006, the CAA published its initial proposals for Q5 of:

(a) between RPI+4 and RPI+8 at Heathrow;

(b) between RPI-2 and RPI+2 at Gatwick; and

(c) a request to the Government to consider de-designating Stansted, but also with the suggestion of a 'market-led' price cap should that not occur. Pending the DfT's decision on whether or not to dedesignate it, no reference has been made of Stansted to the CC.

2.28 The CAA's press briefing at the time of its initial proposals indicated that the major reason for the difference between its proposals and those of BAA at Heathrow and Gatwick was its different assumptions on the cost of capital, reducing X by about five percentage points at Heathrow and about three at Gatwick. Efficiency savings and other revenues accounted for the remaining difference between BAA and the CAA for Heathrow; but for Gatwick the effect of efficiency savings and other revenues was offset by the effect of the CAA adopting lower passenger numbers. Table 6 shows a CAA sensitivity analysis which it published at the time of proposals. At Heathrow, for example, this showed that a ¼ per cent difference in the cost of capital would affect X by one percentage point: whether or not to undertake the Heathrow East Terminal (HET) programme would affect X by almost two percentage points.

TABLE 6 CAA analysis of effects on price caps

<i>Sensitivity</i>	<i>CAA analysis of effect on Heathrow X</i>	<i>CAA analysis of effect on Gatwick X</i>
¼% cost of capital	+/-1	+/-0.7
Heathrow East	+/-1.9	
£100m investment		+/-0.3
5 per cent passengers	+/-2.4	+/-2.9
5 per cent operating costs	+/-1.4	+/-2

Source: CAA.

2.29 Table 7, however, shows an analysis the CAA received from BA which argued for a small annual reduction in airport charges on the basis of different assumptions to those of the CAA. BA estimated that lower opex than assumed by the CAA would, for example, reduce X by 2.1 percentage points from the mid-point of the range for X suggested by the CAA; higher retail revenue and lower cost of equity would each reduce X by 1.2 percentage points.

TABLE 7 BA analysis of effect on Heathrow X

	<i>Effect on X</i>
CAA initial estimate	+5.7
Effect of:	
Higher passenger numbers	-0.5
Lower investment costs	-0.25
Lower opex	-2.1
Higher retail revenue	-1.2
Lower cost of equity	-1.2
Tax benefits	-1
BA adjusted X	-0.55

Source: BA.

-
- 2.30 Having considered responses to its December 2006 proposals, the CAA's document *Airport Price Control Review—CAA Recommendations to the Competition Commission for Heathrow and Gatwick Airports*, March 2007, which accompanied the terms of reference to us, included the same indicative ranges for airport charges as it proposed in December 2006.
- 2.31 Since March 2007 and during the course of our inquiry, BAA has made some significant changes to its financial projections, in particular increases in capex (as a result of the continuing Constructive Engagement) and opex (primarily to improve service standards following significant increases in security requirements in 2006). As we discuss further below, the scale of the increases in capex in particular are surprising at the very end of such a lengthy process of Constructive Engagement. It is also highly unusual for there to be so many material changes to key inputs into a pricing formula during the course of a CC inquiry, which will have to be considered further by the CAA. In addition, as noted in paragraph 4.127, BAA was also unable until a very late stage of the inquiry to reconcile the differences between its own opex projections and those of the CAA, due in part to the different methodologies used; even now the reconciliation is incomplete. Because the differences are so significant, the CAA will need to examine the differences and the reasons for them in detail. Also as well as our formal recommendations as to the maximum level of airport charges and remedies in relation to any course of conduct we may identify as against the public interest, we set out below a number of other recommendations to the CAA.
- 2.32 The proposed increases in the level of airport charges at the two airports for Q5, compared with the current price caps for 2007/08, are summarized in Table 8. The CAA and BAA proposed not only different values of X but also different figures for an 'opening yield adjustment'—a one-off adjustment to the revenue yield at the beginning of a quinquennium—to reflect:
- (a) structural changes in airport charges in that year: the inclusion of the baggage infrastructure charge and the fuel turnover levy;
 - (b) the ongoing effect of recent increases in airport security costs, which are expected to become permanent; and
 - (c) in the BAA submission to ourselves, the increase in operating costs associated with the opening of Terminal 5, offset to some extent by the closure of Terminal 2.
- 2.33 The values of X alone are as a result not fully comparable. Table 8 also therefore shows the amount of airport charges per passenger in the first and last years of Q5.

TABLE 8 Proposed price formulae for Q5 (2007/08 prices)

	Opening yield adjustment £	£/passenger, 2008/09 £	Annual change within Q5	£/passenger, 20012/13 £
<i>Heathrow (£9.31 cap in 2007/08)</i>				
CAA March 2007 recommendations BAA	0.42	10.1–10.5	RPI+4–RPI+8	11.8–14.2
-September 2006 submission to CAA	0.43	10.80	RPI+12.25	17.75
-May 2007 submission to CC	2.08	12.63	RPI+10.22	18.48
-July 2007 revised forecasts	2.10	12.91	RPI+12.14	20.22
BA May 2007 submission to CC			RPI-1.5	
<i>Gatwick (£4.93 cap in 2007/08)</i>				
CAA March 2007 recommendations BAA	0.29	5.11–5.32	RPI+2–RPI-2	4.6–5.6
-September 2006 submission to CAA	0.29	5.28	RPI+2.75	5.88
-May 2007 submission to CC	0.58	5.81	RPI+4.75	6.97
-July 2007 revised forecasts	0.60	6.04	RPI+9.6	8.64
BA May 2007 submission to CC			RPI-4.4	

Source: CAA and BAA.

Note: Figures are at 2007/08 prices, assuming (as with other figures in this report at 2007/08 prices) an increase in RPI of 1.0285 in 2007/08.

2.34 The doubling of charges proposed by BAA at Heathrow would result in a level of charges significantly above those shown in Table 3 currently prevailing at other major European airports (assuming these airports hold prices constant). BAA showed us recent market research showing some passenger willingness to pay higher charges for improved facilities at Heathrow. We have some doubts about the survey carried out by BAA, but putting those to one side we noted that this survey suggested £15 as a key threshold in willingness to pay; the survey question on willingness to pay for improvements also related to an increase of about £1 per year rather than the £2 sought by BAA.

Issues affecting airport charges

2.35 Issues in our review of airport charges at Heathrow and Gatwick airports fall into three main categories:

- (a) the general regulatory approach, including the structure of the formulae;
- (b) the maximum level of airport charges as determined by the charging formulae (as detailed in paragraph 4.1); and
- (c) public interest issues.

3. The general regulatory approach

3.1 A number of issues relating to the general regulatory approach, including the structure of the price control formula, are set out in more detail in Appendix C.

3.2 Two general issues as to regulatory approach were considered in our previous reports, but have given rise to little disagreement in the current inquiry. We consider each in turn.

System versus individual airport approach

- 3.3 A first general issue is whether airport charges for the two airports should be set on the basis of each individual airport or on a system basis. The approach used can be relevant to the charging formulae adopted—whether the formulae should be based on airport charges at each airport or charges averaged over the two or even three London area airports. But it is also relevant in considering whether charges for individual airports should be set only on the basis of returns at that airport or whether they should also have regard to returns for the two or three airports combined, with an element of cross-subsidy between them. As evident in paragraph 2.16, there were aspects of the system approach in the formulae adopted for the first three quinquennia. In its decision on airport charges for Q4, the CAA adopted the individual airport approach, although the CC had recommended that the former system approach should be maintained. But this change made little difference to the maximum level of airport charges recommended for any of the three airports in Q4.
- 3.4 The CC's previous support for the system approach was partly due to concern about the financing of an additional runway and associated terminal and other facilities at Stansted which might have been necessary due to constraints on runway development elsewhere. The Government having subsequently supported runway development at both Heathrow (provided certain environmental and planning conditions are met) and Stansted, there is now little merit to the system approach. There could also now be significant disadvantages in adopting a system approach, including the risk of development decisions being less focused on the needs of users of the individual airports and of developments being undertaken at airports where they are less beneficial to users. Those issues are also relevant to our market inquiry. All airlines from whom we heard as well as the CAA argued strongly in favour of the individual airport approach.
- 3.5 We therefore recommend that in Q5 the maximum level of airport charges should be set separately for each airport and on the basis of the appropriate rate of return allowed for each individual airport rather than on a system basis.

The single till

- 3.6 A second general issue is whether airport charges should be set on a single-till basis, after taking into account revenues from commercial activities; or on a dual-till basis in which airport charges are required to cover aeronautical costs without taking commercial revenues and costs into account. This issue was considered at length by the CC in the last review, following which, as noted in paragraph 2.7, the CAA followed the CC's recommendation to continue to employ the single-till approach.
- 3.7 The CC's main reasons for retaining the single-till approach in the last review were summarized in paragraph 2.222 of the 2002 report, namely:
- (a) There was no evidence that the single till had led to any general under-investment in aeronautical assets at the three BAA London airports in the past, nor any expectation that it would do so over the next five years.
 - (b) It was not clear that the dual, as opposed to the single, till would be likely to lead to significantly better aeronautical investment in the future and in some respects was likely to be worse.
 - (c) The dual till could improve the efficient use of capacity, but the benefits were unlikely to be more than marginal even at Heathrow, where they would not occur until Q5.

- (d) Nor did we see significant benefits from any deregulation of commercial activities. In so far as airport charges affected fares, the current relatively high profits from commercial activities were applied to the benefit of passengers; the dual-till approach was likely to require increased regulation of such activities.
 - (e) The dual till could also risk unduly benefiting commercial activities, at the expense of non-capacity enhancing aeronautical activities, which may not attract sufficient space, funds or attention.
 - (f) It was difficult sensibly to separate commercial and aeronautical facilities. Commercial revenues at the three BAA London airports could not be generated without aeronautical facilities: they should therefore be regarded as one business.
 - (g) Since the successful development of commercial revenues required airlines to deliver passengers to or from the airport, the benefits of commercial activities should be shared with airlines and airline users.
 - (h) We believed that average fares would be affected at both congested and uncongested airports if airport charges were to be higher at the three BAA London airports as a result of a switch to a dual-till regime, and we did not think that effect could be justified where it arose from application of dual-till regulation with little or no offsetting benefits.
 - (i) A move from the single till to the dual till would in the longer term mean a substantial transfer of income to airports from airlines and/or their passengers and be to their detriment, potentially undermining regulatory credibility and creating regulatory uncertainty.
 - (j) We also noted, among other things, that it was difficult, in practice, to allocate both investments and operating costs between aeronautical and commercial activities. To the extent that some of the judgements that had to be made were arbitrary, future disputes about cost allocation could harm relations between the airport and its users.
- 3.8 The CC's 2002 report also noted that whereas the CC had concluded that the dual till should not be adopted in Q4, it would be for its successors to decide on whether the dual till should be adopted subsequently. But the CC's view was that on the basis of the factors considered in that review, it would require a very significant change in circumstances to change the balance of the arguments in future reviews.
- 3.9 We have seen nothing to change the CC's previous assessment of this issue. Most parties in the current inquiry have argued strongly that the single till should be maintained, although BAA has suggested that aspects of this issue could be considered further in the market inquiry.
- 3.10 We therefore recommend that airport charges should continue to be set on a single-till basis.

The charging formula

- 3.11 Airport charges are regulated according to an RPI+/-X charging formula, in which the allowed annual increase in airport charges is limited to the percentage increase in RPI plus or minus an X factor, but also subject to a pass-through of the additional costs, above a threshold limit, of meeting any additional security requirements, and a

correction factor in subsequent years for over- or under-recovery of permitted charges in any year.

- 3.12 By setting a price cap for five years, rather than setting airport charges to ensure they cover costs and no more than a specified rate of return, BAA is given the incentive to outperform in that period, by, for example, delivering the required service at lower cost than had been forecast in the price determination. One airline argued that the RPI-X approach as implemented for BAA, through a revenue yield term, resulted in a bias in favour of growth and against service quality; but, as noted in Appendix C, many of the constraints on quality of service result from the ageing or constrained infrastructure which should be alleviated with the opening of Terminal 5 and other investments. We regard this as a reason to reinforce provisions for service quality rather than to depart from the RPI-X approach.
- 3.13 We recommend that the RPI-X approach should be maintained.
- 3.14 There are, nonetheless, some general weaknesses in the current form of control. The RPI-X formula gives some incentive to reduce operating costs. However, the incentive is largest at the beginning of the five-year period and declines during it, since the resulting lower operating costs are taken into account in setting X for the subsequent period. Indeed towards the end of the period, the incentive may be to refrain from realizing savings on operating efficiency to create easily achievable savings for the next period. The CAA may also have less ability to set tough opex targets, which could act as a more powerful incentive to reduce operating opex, because of an absence of comparators. The CAA raised the option of an 'opex roll-over' which would allow BAA in such cases to continue to receive the benefits of opex reductions in the subsequent review. BAA could, for example, be allowed to retain the benefit of cost savings for a full period of five years, regardless of when it made them during the regulatory cycle. One airline argued against that approach, suggesting that the formula should itself be set on the basis of a 'real opex challenge'. In our view, any such approach may need to be symmetric, to provide an equal discouragement to cost increases; it would also increase significantly the complexity of the price control, and would be likely to require difficult accounting judgements to implement it in order to distinguish efficiency improvements from other cost (or accounting) factors.
- 3.15 We recommend that there should be no such opex roll-over.
- 3.16 A further weakness in the charging formula relates to investment incentives. As noted in paragraph 2.20, an assumed level of capex (issues relating to which are set out further below) is a main input into determining the size of X, but regulation can itself introduce distortions to the costing and selection of capex projects. We have noted in paragraph 2.26 the CAA's encouragement of Constructive Engagement to resolve some of these concerns, which we discuss further below and which we may also need to consider in the market inquiry. But other measures may also be necessary to ensure that the appropriate investment for which allowance is made in setting charges is subsequently carried out.
- 3.17 In the CC's 2002 report, we recommended a number of triggers relating airport charges to progress in achieving investment milestones on particular capital projects, notably on Terminal 5 at Heathrow. We believe it is necessary to enhance this approach for Q5 (see paragraphs 4.30 to 4.37).
- 3.18 The appropriate size of X, and the subsequent outturn, is also sensitive to traffic forecasts, which affect not only the revenue from airport charges but also revenue from commercial activities. In previous reports, we discussed whether, in view of the

uncertainties about traffic growth, there should be a volume term in the formula, but considered that there would not be any significant advantage from doing so; we have heard no arguments in favour of a volume term in this inquiry. Such a term might result in higher prices during a downturn, as airlines would be hit not only by lower passenger numbers but also by higher prices.

- 3.19 We recommend that there should continue to be no volume term for differences between the actual number of passengers at each airport in any year and the numbers expected when the airport charges formula was set.
- 3.20 There are also a number of detailed issues as to the workings of the RPI-X formula.
- 3.21 One airline suggested substituting the Consumer Price Index (CPI) for the current use of the RPI. There was no support for this suggestion from the CAA or other airlines and there is no regulatory precedent in the UK for changing from the RPI index, though most sector regulators have examined the issue at some point. Most sector regulators have concluded that the value of continuing to base controls on RPI is, first, that precedent favours RPI, and secondly that significant cost items of regulated companies, such as index linked bonds which are used to calculate the cost of capital and wage settlements, are generally linked to RPI.⁶
- 3.22 We therefore see no reason to change the current approach of relating increases in charges to changes in the RPI.
- 3.23 We have also considered in previous inquiries under the Act whether regulation should be on the basis of revenue yield—ie £ per passenger—rather than a ‘tariff basket’, ie a weighted average increase of all elements of the airport charging structure.
- 3.24 We have received no submission arguing that the revenue yield approach should not be continued. We recommend that regulation should continue to be on the basis of revenue yield.
- 3.25 In calculating revenue yield, airport charges are treated before any deduction of discounts (otherwise, discounts to one airline could be financed by higher charges to other airlines). The CAA proposed to retain this approach. We are not aware of any objections to that or reason not to do so, and recommend that the current approach be continued.
- 3.26 However, since the revenue yield is calculated only with reference to the number of passengers, separate treatment for non-passenger flights is necessary. Non-passenger flights accounted in 2005/06 for only about £2 million revenue at each of the two airports. Revenues from such flights are currently excluded from the regulated yield, but subject to the requirement that the charges applied to such flights (eg for landing) should be the same as for passenger aircraft. This approach was generally not in dispute. The CAA in its recommendations to us noted that BA had expressed concern that, since passenger charges had increased more than the other elements of airport charges, charges to non-passenger flights could be lower than appropriate. However, the CAA also noted the small number of such flights and that they would in any event be constrained by the availability of slots.
- 3.27 We recommend that non-passenger flights should continue to be excluded from the regulated yield, but subject to the requirement that the charges applied to such flights (eg for landing) should be the same as for passenger aircraft.

⁶The relationship between BAA’s Capex costs and RPI is discussed separately in paragraphs 4.28 and 4.29.

- 3.28 A further implication of the revenue yield approach is that since the yield is affected not only by any increase in each element of the charging structure, but also by any changes in the mix of traffic (for example, the share of domestic and international passengers who are subject to different charges, or the number of passengers per plane), the yield cannot always be accurately forecast. The actual yield in a year is only precisely known at the end of the year, when charges for the next year have been set. Over- or under-recovery of the permitted yield is currently subject to a correction factor applied two years later, but on a £ per passenger basis, which may benefit the airports if the number of passengers has increased. The CAA has proposed that the correction factor be amended to recovery of an absolute amount; we are not aware of any objection to that or of reasons not to do so. This change has attracted support from those who commented.
- 3.29 We recommend that the correction factor should be amended to allow recovery of an absolute amount.
- 3.30 There has been no formal mechanism for applying a correction factor at the beginning of a quinquennium for over- or under-recovery at the end of the previous quinquennium, but the CAA has said it would agree to this, and we agree it should do so.
- 3.31 We noted in paragraph 2.17 the provision for pass-through of security costs above a threshold level, referred to as the S factor. The CAA has proposed to increase the pass-through of additional costs (above thresholds of £14 million at Heathrow and £6 million at Gatwick) of meeting additional security requirements in Q5 from the current 75 to 90 per cent of the additional costs incurred. (In the 2002 review, the CC suggested it be maintained at the former 95 per cent.) One airline has supported this (and increasing the de minimis amount by RPI), although others have preferred no increase.
- 3.32 We have noted in paragraph 2.25 the significant changes in the security situation that have continued during Q4, including the additional DfT and EU security requirements. We recommend the security cost pass-through in Q5 should be increased to 90 per cent, although subject to some subsequent efficiency adjustment to which we refer in paragraph 4.137.
- 3.33 There is, however, currently no formal mechanism for carrying over additional security costs incurred at the end of a quinquennium into the next quinquennium; hence there is currently no element of 2007/08 security costs in the projections for Q5.
- 3.34 The CAA has indicated that it is minded to approve any claim for the additional costs at the end of Q4 of meeting additional security requirements (as opposed to the tightening of service standards) at the current 75 per cent rate. We recommend that this be done; to do otherwise could be regarded as a disincentive to increase opex to meet security requirements.

Changes to scope of the charging formula

- 3.35 The CAA's recommendations also put forward possible changes to the scope of the charging formula.
- 3.36 Outbound baggage infrastructure and operating costs are currently not included in regulated airport charges but recovered through non-regulated charges to airlines, as part of check-in desk rentals (a 'specified activity' for which cost information has to be provided—see paragraph 4.163 et seq). In contrast, inbound baggage costs are

treated as part of airport charges. The CAA recommended adoption of BAA's proposal that all baggage infrastructure costs should be treated as part of airport charges. The operating costs of the baggage system would, however, be a non-regulated charge which BAA had proposed would be financed out of a separate per bag charge: it is clearly important that adequate costing information is provided to airlines on the basis of that charge and any future changes to it.

- 3.37 bmi, which operates at Heathrow, argued that to include baggage infrastructure costs in airport charges would impact unduly on short-haul operators whose passengers had less hold baggage. (Although another airline disputed this, particularly following recent restrictions on the amount of cabin baggage, we understand this is still the case.) bmi also believed it would be further disadvantaged as it had already financed improvements to the baggage infrastructure it used. BAA regarded the proposed approach, which would provide a more uniform charge for baggage infrastructure than the current arrangements, as part of its 'one alliance one terminal' strategy for occupation of Terminal 1 and ultimately HET by Star alliance airlines and which would benefit the competitive equivalence of the facilities for operators using other terminals with those for BA in Terminal 5. The CAA suggested that by incorporating such baggage costs in airport charges it was still open for BAA to decide how specifically to charge for them. While we acknowledge bmi's concerns that it could be disadvantaged by this proposal, this would largely be a matter of how BAA should choose to recover this additional element of the charge taking into account the views of all airlines. The structure of charges is, however, an issue in which, given the different interests of the airlines, the CAA will also need to be involved and which we may wish to consider further in the market inquiry.
- 3.38 We therefore recommend the inclusion of baggage infrastructure charges in airport charges.
- 3.39 The CAA has also suggested, as proposed by BAA, that the current fuel turnover levy be discontinued and the amounts previously raised be recovered from airport charges. One airline said that it was surprised by this since there had been no consultation on it. The CAA referred in its December document to this proposal being the result of a recent European Court of Justice (ECJ) ruling on fuel turnover levies. We agree with this proposal, as long as the CAA remains satisfied on this point.
- 3.40 Provision will also be necessary for airport air traffic control charges to be included in airport charges following the DfT decision to discontinue separate charges for this service and subject to the CAA being given precise figures on the increase in charges that will be necessary as a result. We are aware of a concern that to recover those amounts on the basis of a charge per movement rather than a weight-related charge could impact unduly on operators of smaller aircraft: but it would be open to BAA to consider the most appropriate method of recovering the costs involved, a further issue which the CAA will also need to consider in due course.
- 3.41 We therefore recommend provision in the airport charge formula for an increase in charges to include the cost of airport air traffic control. We have seen no figures for the adjustment to airport charges that would be required, which it will be for the CAA to determine.

4. Issues affecting the level of charges

- 4.1 The objective in setting a price cap is to provide a reasonable return on new and existing assets, termed the RAB—in particular to provide for an appropriate level of new investment and a rate of return commensurate to the cost of capital necessary for such investment to be carried out—after allowing for regulatory depreciation, an

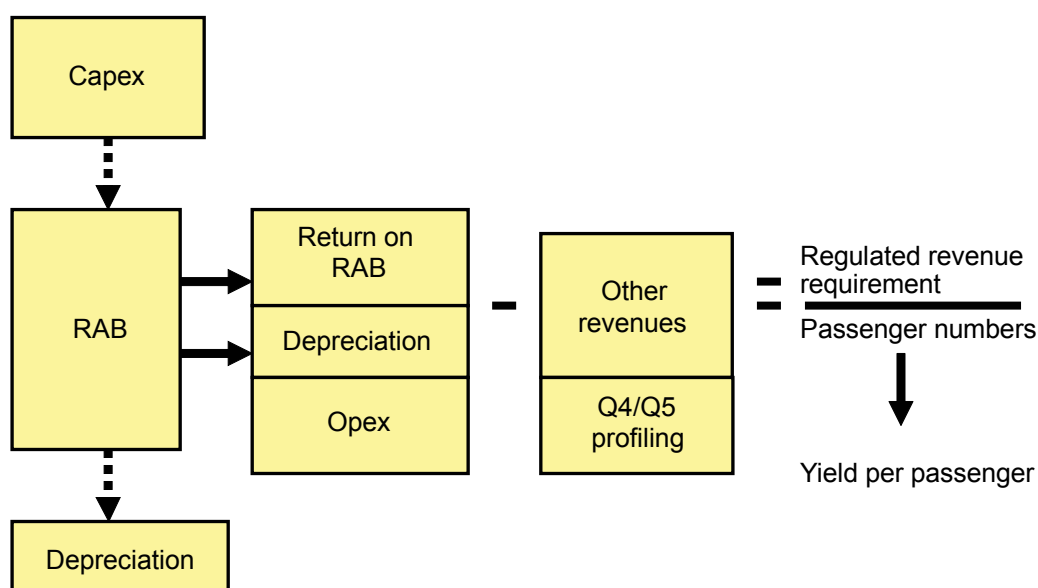
efficient level of operating costs and the income expected to be generated from other activities. Figure 1 based on the CAA submission to us illustrates the 'building blocks' of such an approach, showing the interrelationship of the seven main issues that need to be considered in deriving the required revenue yield per passenger, namely:

- (a) capex, the projected level of which, as noted in paragraph 2.20, affects charges both by the inclusion in the RAB of assets in the course of construction, and by the depreciation charge on those assets when they become operational;
- (b) the RAB, on which a rate of return is allowed, and which is affected both by capex, and by the projected level of depreciation;
- (c) cost of capital, which determines the rate of return allowed on the RAB;
- (d) depreciation, both of existing assets, and of new assets when they become operational;
- (e) opex, which directly increases the revenue requirement;
- (f) other revenues, which, as discussed in paragraph 2.7, under the single-till approach are deducted from the overall revenue requirements; and
- (g) traffic forecasts. The higher/lower the forecast level of traffic, the lower/higher the charge per passenger necessary to obtain a particular revenue requirement. But traffic forecasts may also affect the overall revenue requirement, to the extent that capex, operating costs and other revenues (such as retail revenues) may to some extent vary with the number of passengers.

Additionally, however, we noted in paragraph 2.16(d) that, as recommended in the CC's 2002 report, the maximum level of airport charges set for Q4 included an advancement of revenue from Q5 to Q4, allowing for which the rate of return in Q4 was expected to be somewhat higher, and that in Q5 somewhat lower, than would otherwise have been the case. It may also be necessary to consider any profiling of airport charges to generate the expected revenue requirement within Q5; or between Q5 and Q6.

FIGURE 1

The standard regulatory building block approach



Source: CC.

Note: Q4/Q5 profiling only applies to Heathrow. No adjustment was made at Gatwick.

Capital expenditure

- 4.2 We discuss BAA’s capex in Q4 and its projections for Q5 in detail in Appendix D. As noted in Table 1 of Appendix D, capex at Heathrow in Q4 is expected to be some £5.4 billion (at out-turn prices), over £500 million above that expected when the charging formula was set in 2002. The main reasons for this higher expenditure were an acceleration of some expenditure on Terminal 5 (which accounts for some £3.8 billion of capex in Q4) and changes in its specification, with some reduction in overall spend on other projects. The total costs of Terminal 5 in Q4 and Q5 together are expected to be within the budget shown in the 2004 CIP, but to exceed the 2002 forecasts by about £400 million, due to the changes in project specification.
- 4.3 For Gatwick, capex in Q4 is expected to be about £530 million, about £100 million less than expected, the reasons for which include lower passenger forecasts, the change in the fleet mix from long-haul to short-haul aircraft and the deferral of much of the previously forecast North West Zone works. As is also apparent in Table 5 of Appendix D, there were also significant changes in the mix of the capex programme at Gatwick, only a minority of the programme envisaged in the 2002 CIP being carried out, and almost half of actual expenditure being on projects not identified in the 2002 CIP.

Capital expenditure projections for Q5

- 4.4 The CAA’s approach to capex in Q5 relied heavily on Constructive Engagement between the airlines and BAA. That process involved consideration not only of the projects to be carried out, but also the commissioning by the International Air Transport Association (IATA) of a review from the construction consultants, Currie & Brown, of BAA’s costs of delivering projects. The CAA itself also commissioned Scott Wilson to review the efficiency of BAA’s capital programme at Stansted.

- 4.5 For the purpose of its recommendations to us in March 2007, the CAA adopted the BAA's then current projections of total capex in Q5 of £2,929 million at Heathrow, and of £434 million at Gatwick (revalued to 2007/08 prices by the change in RPI between the two years), but subject to revision (as a result, for example, of continuing Constructive Engagement discussions between BAA and the airlines) of both the projects to be undertaken and their costs. BAA in its submission to us in May 2007 still projected capex of £2,929 million at Heathrow and £421 million at Gatwick in Q5 (also at 2007/08 prices), but subject to the possibility of some additional expenditure at both airports (its submission indicating a possible additional expenditure of £200–£300 million at Gatwick) and to a satisfactory outcome of the regulatory review. BA, however, suggested X could be reduced by 0.25 at Heathrow by improving the efficiency of BAA's capex; it noted that additional capex could increase X by 1.2 at Gatwick, but that this would be offset by the effect of higher passenger growth which the increased capex would support.
- 4.6 In the earlier stages of our inquiry, we received a number of criticisms of inadequate investment, historic and planned, by BAA at Heathrow; also criticisms by some airlines of investments that would primarily benefit others. We also received some criticisms of inadequate investment at Gatwick.
- 4.7 However, as noted in paragraph 2.31, the process of Constructive Engagement continued during our inquiry and reports issued by the Joint Steering Teams for each airport in mid-July 2007 recorded a measure of agreement on a larger capex programme at each airport than had previously been assumed by the CAA. A number of aspects of the CIPs at each airport were, however, still unresolved, and the CAA itself appointed Currie & Brown to consider these further. Currie & Brown issued a draft final report on 17 September 2007. Issues relating to capex were, therefore, continuing to evolve throughout the course of our inquiry.
- 4.8 As noted in paragraph 4.5, for Heathrow the CAA's recommendations to ourselves incorporated BAA's then projected capex in Q5 of £2,929 million. In the Constructive Engagement reports of mid-July, there was a degree of agreement on a somewhat higher programme of £3,535 million, including in particular the HET regarded by many airlines as essential to ensure competitive equivalence between BA as the occupier of the new Terminal 5 and those airlines that would otherwise occupy the much poorer existing terminals. That programme also includes additional piers and pier-served stands on the Eastern Apron and automated baggage connectivity between Terminal 5 and the CTA. But agreement was far from complete, some airlines remaining concerned about aspects of projects that have been included in the programme, but also requesting the inclusion of additional projects which BAA believed it would not be operationally practicable to include in the Q5 programme.
- 4.9 Currie & Brown subsequently broadly supported the programme of £3,535 million, concluding that there was little scope at Heathrow for additional projects to be undertaken, the current programme already being challenging. As noted in paragraph 90 of Appendix D, they did, however, express some concerns over aspects of the programme: including whether, subject to feasibility, the HET Phase 1 footprint should be increased from 4 to 4.5 bays; whether the body of the HET midfield pier should be extended; and whether there should be delay to the development of a new HET multi-storey car park (MSCP). The effect of such options on the capex programme, however, remains uncertain. We therefore recommend that the CAA consult the airlines and ensure sufficient consideration has been given by BAA to the issues raised by Currie & Brown before finalizing its determination.
- 4.10 As noted in paragraph 4.5, for Gatwick the CAA's recommendations to ourselves incorporated BAA's then projected capex programme of £421 million. In its

submission to us in May 2007, BAA said that GAL had begun discussions on advancing expenditure from Q6 to Q5, with a possible additional expenditure in Q5 of £200 million to £300 million. Some airlines expressed concern to us about BAA's proposals for increased expenditure, initially with little consultation or detailed supporting material. By the time of the Constructive Engagement report in mid-July, BAA regarded a capex programme of £848 million as necessary to include the full development of a new Pier 7 within Q5 to improve pier service. The airlines agreed to a somewhat lower total which they estimated at between £712 million and £796 million including a phased development over Q5 and Q6 of Pier 7 (the lower figure also after allowing for airlines' view of the scope for cost savings). Part of the disagreement on this project was whether an initial improvement in pier service could be obtained by providing additional stands on Pier 6, as the airlines proposed, or whether, as BAA argued, that could impede the ultimate development of Pier 7.

- 4.11 In its draft final report, Currie & Brown supported the full development of Pier 7, part of a programme of £779 million, after allowing for cost savings of £69 million. But given the airlines' strong opposition to an increase in airport charges at Gatwick and the uncertainty as to whether all possible alternatives to the development of Pier 7 have been explored, we recommend that the CAA should satisfy itself that airlines are prepared to pay for the costs of the Pier 7 development at Gatwick and that full consideration is given to alternative solutions the airlines may be proposing.
- 4.12 However, while the Currie & Brown report noted that the Constructive Engagement process was perceived to be a positive development, it pointed to a number of weaknesses in BAA's capex procedures; for example, that there should be a more formalized evaluation and approvals process using gateway methodology to improve the quality of information flow between the stakeholders at each stage and to allow a better and earlier focus on resolving major differences (proposals which BAA was now developing). The report also noted that the airlines' concerns about levels of contingency, project-specific costs, on-costs, and risk had not been answered.

Consultation on capital expenditure

- 4.13 As apparent from Figure 1, regulation of the BAA's designated airports is based on allowing a reasonable rate of return on the RAB, which consists of the value of past and, in any regulatory period, projected investment. A significant weakness of such an approach to regulation is that a return may be allowed on an investment irrespective of its merits: although it would be open to a regulator not to allow a return on an investment that has clearly been unnecessary, not wanted by users, or carried out at an excessive cost, it would be far from straightforward to establish that is the case, and we are unaware of any airport investment not having been included in the RAB for that reason. It is therefore important to have mechanisms to ensure that the projects carried out benefit users, have expected benefits that exceed their costs, and that the projects are not carried out at excessive costs. Effective consultation with airlines, to the extent that airlines, operating in a more competitive market, can be regarded as a proxy for their customers, is one means to ensure this.
- 4.14 In paragraph 2.424 of the 2002 report we discussed a range of complaints from airlines about consultation on capex, but concluded that given the constraints and uncertainties there was insufficient basis to establish conduct against the public interest. But we said that we would expect to see significant improvements in Q4. As noted in paragraph 49 of Appendix D, in paragraph 3.63 and Annex 4 of its Decision of February 2003 on the Economic Regulation of BAA's London Airports the CAA set out an agreement reached with BAA on enhanced information disclosure and

consultation. It also indicated that it would expect in due course to review performance under these arrangements. The CAA appointed Bob Cotterill⁷ to carry out this review. He concluded in his report published in December 2006 as part of the CAA's initial price proposals that starting from a low base prior to Q4, BAA's information disclosure and consultation had generally improved, particularly since 2005 following the CAA's Constructive Engagement initiative, but suggested that a better planned and more integrated approach to consultation should be taken. (Paragraph 50 of Appendix D summarizes the steps he recommended should be adopted.)

- 4.15 Constructive Engagement between BAA and the airlines is clearly an important process in resolving uncertainty as to the projects to be undertaken, although we recognize that certain details of the schemes will require continuing discussion as the projects develop. Agreement between BAA and the airlines is a far preferable way to decide the investment programme than relying on the judgement of ourselves or the CAA. Most of the airlines to whom we spoke also regarded Constructive Engagement as a significant improvement on previous levels of consultation, or consultation at other airports.
- 4.16 We share a number of the concerns put to us about several aspects of the process of consultation, including Constructive Engagement, but which also relate to BAA's planning of the CIP more generally, with implications for the assumed level of capex and its allowance in the RAB, and for which there is clear scope for improvement during Q5.
- 4.17 The significant increase in BAA's capex programme during the course of our inquiry which we noted in paragraph 4.8 itself suggests, in our view, weaknesses in BAA's long-term planning of capex, its proposed programme for Gatwick more than doubling, with little apparent consultation, in only a couple of months. Such a significant increase in capex ambitions late in the consultation process has resulted in decreased transparency of costing and difficulties in assessing the proposed plan as part of the CC inquiry; as a result, we are concerned whether airlines have received information in a timely manner and are able properly to assess it. It may also lead to hasty and inadequate planning of the projects concerned. Another example is the absence until a late stage of the process of a business case for HET, although we are sympathetic to bmi's argument that this should not now delay the project. We were also surprised that there appears to have been little detailed planning of the HET project until about 2005.
- 4.18 The significant changes to the CIPs over the last few months show that Constructive Engagement cannot be confined to the periods approaching a quinquennial review, but that it should be a continuous process, including, as suggested by Currie & Brown, effective involvement of airlines in the initial stages of considering options for projects and, as some of the airlines suggested to us, more regular and systematic consultation on any changes to the capex programme within each quinquennium.
- 4.19 Among our other concerns on Constructive Engagement (on which the CAA's comments are set out in Appendix D) are:
- (a) Significant information and resource asymmetry between BAA and the airlines at any time which could allow BAA to 'divide and rule'.

⁷Previously the CAA's Director of Economic Policy and Regulation.

- (b) Inadequate information in the CIP to support the estimated project costs, with cost breakdowns provided only for one-half of the major projects, and the on-cost and risk allowances not explained.
- (c) Very limited information on the implication of the capex for operating costs. It is difficult to see how BAA's airline customers can form properly informed views on the approval of capex programmes when the cost and charging implications of these programmes on these customers are not readily apparent. (This had been noted by the Cotterill review and does not seem to have been addressed in the latest CIP.) The surprising scale of the increase in operating costs associated with the opening of Terminal 5 as currently estimated by BAA (to which we refer in paragraph 4.143(b)) shows the importance of this issue.
- (d) Little discussion of the implications of particular projects or the programme as a whole for airport charges. It is in consequence likely that each airline will want the particular projects from which it will benefit, but to which it will only pay a fairly small proportion of the cost; but not wish to pay its share of the costs of projects from which other airlines will benefit but not themselves. Even though airlines are clearly best placed to scrutinize BAA's capex plans, there is a risk that any CIP agreed through Constructive Engagement will be inflated by the airlines mixed incentives, and BAA's incentive to grow the RAB. We recommend that the selection of projects for inclusion in the CIP should be informed by a top-down discussion, starting with the overall master plan and strategic business plan for each airport, target airport charges, the implied target capital spend and the prioritization of projects within these targets.
- (e) The difficulty for airlines in judging the impact of investment on charges, or therefore in assessing the merits of individual projects or the overall programme, unless they are able to analyse the commercial revenues likely to be generated by the projects and which, under the single-till approach, would offset the effects on airport charges.
- (f) The resource-intensive nature of BAA's consultation process more generally, especially for airlines with a smaller presence at the two airports, with limited resources, few staff in London, and/or without membership of one of the alliances. There is therefore a risk that the voices of the non-aligned airlines or airlines such as bmi not taking part in the process are not sufficiently taken into account, that too much weight may be attached to the views of a small number of well-resourced airlines, and that BA in particular could be in a privileged position.
- (g) The absence of a dispute resolution/arbitration mechanism at each of the relevant stages of planning and implementation, with the CAA acting only as an observer to date, which it felt strongly should be its role unless agreement was not reached by the end of the process on any particular points.
- (h) Lack of clarity in how BAA arbitrates between various airlines' views and how apparent consensus has been reached in areas which appeared to be hotly contested a short while previously (eg interterminal baggage system).

We recommend that the CAA should address the above matters in implementing the recommendations of the Cotterill report and revising Annex 4 of its Q4 decision document, and in further developing the Constructive Engagement process. BAA told us it was committed to consultation and was currently reviewing and enhancing the current Annex 4 proposal outlining the information and structure necessary to improve consultation.

Project costs

- 4.20 As noted in paragraph 4.13, it is important to ensure not only that the projects undertaken are of benefit to users, but that the costs of those proposals are not excessive. There were a number of aspects of BAA's approach to project costs about which we were concerned. The Currie & Brown report commissioned by the airlines suggested relatively limited scope for efficiency savings, at about 5 per cent, which BAA has said are now built into its project costings. But both we and Currie & Brown found it difficult to confirm such savings were included in the CIP, particularly as the 5 per cent saving suggested was more theoretical than real, as the plan has changed too much to allow comparison of project costs from the 2005 CIP to the 2006 CIP. We have reviewed the costs at the level of each project, and applying the benchmarks more consistently resulted in some theoretical savings, but this may not be an appropriate approach in the context of a complex airport environment. But we also noted:
- (a) benchmarks are only developed internally and with little transparency of the methodology used;
 - (b) they are only developed for a limited range of project types;
 - (c) there are apparent inconsistencies in application of benchmark costs; and
 - (d) some base costs have been inflated by over 6 per cent over the last few months (eg the base cost per sq metre of HET has increased by 6 per cent since the April CIP), others by 4.1 per cent (in line with construction price inflation).
- 4.21 BAA recognize that benchmarking is an ongoing process. We believe it is important not only that BAA should continue benchmarking, but also that benchmarking is soundly-based and that BAA should continue to demonstrate that it is pro-active in managing its construction costs down. This would require benchmarking to become a mid-quinquennial exercise carried out by an independent third party with the outcome shared with airlines and the CAA and be both forward and backward looking.
- 4.22 Post-completion reviews are also important both as part of the quinquennial review exercise and as a regular exercise when major projects are completed between reviews. But they have not been undertaken consistently on projects such as Terminal 5, nor has there been any external involvement in such reviews, nor transparency of their results with the risk that the RAB may be inflated. Such reviews should cover not only whether each project has been completed on budget and within the projected time but also the effect of the project on opex and its performance in delivering the expected benefits to users.
- 4.23 The airlines have also criticized the scale of BAA's on-costs (design and management costs included in BAA's base costs) and of risks of costings of individual projects being exceeded (for which BAA includes a provision for 'risk allowances' over and above the estimated base costs). The Currie & Brown report suggested savings of between 1 and 2 per cent for on-costs and scope for refinement of the current approach to risk management, but suggested that BAA's typical risk allowance of about 25 per cent was broadly in line with its peer groups. It also noted the proposal of some airlines that the amount of risk held at project level be reduced and funds be retained at capital investment portfolio level on the basis that costs might otherwise be overstated against the likely outcome. We noted:
- (a) on-cost benchmarks are not applied consistently (eg for MSCP on-costs are above the upper band of the Currie & Brown benchmarks and on-costs for

pavement and infrastructure are at the high end of Currie & Brown ranges without much explanation).

(b) There would appear to have been little attempt at allocating a lower risk allowance to facilities that have been benchmarked (as recommended by Currie & Brown)—a 25 per cent risk allowance is allocated by default to projects in the early stages of development, without having regard to the expected risks of individual projects.

- 4.24 In our view, the amount of risk held at project level should be reduced and funds be retained at capital investment portfolio level on the basis that costs might otherwise be overstated against the likely outcome.
- 4.25 BAA, while not accepting all the criticisms set out in the preceding paragraphs, told us that it was committed to the process of benchmarking and would be open to a mid-quinquennial review of capex efficiency; it would also agree to post-completion reviews of projects either with the CAA or airlines, provided the number of projects reviewed was limited to those of significance (such as the trigger projects referred to in paragraph 4.32). It also in principle supported a portfolio approach to risk, although this would not in itself reduce the underlying level of risk.
- 4.26 We see advantages to a mid-quinquennial review. We recommend that the CAA should be involved in such a review and in monitoring other ongoing improvements to BAA's capex processes. It is, for example, important to ensure that the benchmarking undertaken is soundly based, that a substantial proportion of projects are subject to benchmarks, that in consequence projects are efficiently carried out and that a sufficient body of evidence is available over Q5 to ensure that the allowance for planned capex in the RAB in Q6 can be justified on the basis of an efficient level of costs. Consultation on changes in the capex programme is also necessary to ensure that a return will be allowed in Q6 for any additional, or alternative projects undertaken in Q5 in response to changes in the demand of users. To the extent any weaknesses in the processes or oversight of capex could be regarded as indicative of a lack of competitive or regulatory pressures on BAA, they may also be relevant to the issues we will be considering in our market inquiry. (We return to other aspects of a mid-quinquennial review in paragraph 4.42.)

Capital expenditure assumptions in our modelling of airport charges

- 4.27 Given the extent of agreement reached under Constructive Engagement, we are assuming in our financial modelling the capex programme of £3,535 million at Heathrow. We have, however, noted in paragraph 4.9 a number of issues that the CAA will need to consider about the Heathrow capex programme. We have also noted in paragraph 4.10 a continuing disagreement on the capex programme at Gatwick. Although Currie & Brown have expressed some support for BAA's proposal to construct Pier 7 in Q5, we believe it important for CAA to verify that the airlines would, given the Currie & Brown report, now regard that project as desirable and the effect on airport charges as justified by the improvements in pier service that will result. Until their views have been confirmed, we believe it appropriate to allow for a somewhat lower capex programme at Gatwick, at the bottom end of the range of between £712 million and £796 million at Gatwick that would be consistent with the planning of Pier 7 over Q5 and Q6 (the size of the range depending on the scope for savings).

Construction price inflation

- 4.28 The CAA submission to us also drew attention to uncertainty over the assumed level of construction price inflation during Q5, assumed by BAA as 2 per cent above growth in RPI, which some airlines said was a higher rate than some other forecasts.
- 4.29 Linking construction price inflation to RPI is a pragmatic approach, and we have seen no real evidence that the broad correlation between construction inflation and RPI is fading. In terms of the construction inflation uplift, there are two possible approaches:
- (a) To try to anticipate what construction prices will do in the next five years. This approach was preferred by both BAA and the CAA, given the nature of airport investments, and is also the approach used by Ofgem. The RPI+2 proposal reflects an expectation that construction price inflation will increase in that period due to the large projects being undertaken in London and the price of raw materials. However, historically the construction market has been cyclical; but downturns are difficult to predict. In addition, in periods of downturn (eg the infrastructure price deflation at the junction of Q3 and Q4), there will clearly be no pressure from BAA to deflate the capex programme and little debate with the regulator on whether it should do so, with the consequence that over the long-run above average inflation may be built into BAA's capex programme.
 - (b) Alternatively, the long run inflation rate may be more relevant for regulators (as the periods of volatility on the upside and downside broadly cancel each other out), with the long-term differential between RPI and construction costs being applied (which would be below RPI+1). This is the Ofwat approach.

We regard the latter as a preferable approach, particularly as some measure of inflation risk is already built into the 25 per cent project cost contingency. We commissioned a report from Experian on construction inflation over the next ten years, which also suggested an assumption of between 0.5 and 1 per cent would be sufficient. We also note that Ofwat applied a differential of 0.4 per cent in 2004. We therefore recommend and have adopted in our own projections an increase in construction prices of 0.75 per cent a year above RPI. We have applied this to all capex, although there would be a case, particularly were any higher increase in construction prices to be assumed, for applying it only to project costs and base costs: we recommend this should be considered further by the CAA.

Investment triggers

- 4.30 In setting the maximum level of airport charges, allowance is made for a return on assets in the course of construction, and for depreciation of those assets when they become operational. Slippage in the investment programme can result in airlines paying higher charges than necessary to finance that investment, and delay in receiving the benefit of the investment, with adverse operational and financial consequences to them.
- 4.31 In Q4, five triggers were adopted at Heathrow; in each case, failure to achieve the relevant investment milestone on time would reduce the value of X by 1/6th per cent for each month that the project is delayed, and by 2 per cent a year thereafter. We also recommended one trigger linked to Pier 6 at Gatwick, set at 1/12th per cent for each month that the project was delayed and by 1 per cent a year thereafter. (However, we acknowledged that the effect of the triggers could prove significantly less than the cost savings to BAA, or extra costs to airlines, from any protracted delay to the projects.)

4.32 Triggers for Q5 are currently being discussed as part of Constructive Engagement. We understand Constructive Engagement at Heathrow has recently produced agreement on the principles for capital investment triggers for Q5, and work is continuing to produce what BAA regarded as a more manageable list than the 18 triggers identified in the final Constructive Engagement report for Heathrow set out in Table 17 of Appendix D. We are therefore confining our comments to the general principles to be adopted. In particular:

(a) Triggers have previously only been applied to a fairly small number of discrete sizeable projects. But we do not accept that any particular number of triggers can be regarded as intrinsically too many; more important in our view is that a substantial proportion of the capex programme should be subject to triggers, maybe in the order of between 75 to 80 per cent. We accept, however, that triggers would be difficult to apply to the numerous minor projects that are carried out.

(b) The scale of each trigger was previously somewhat arbitrary: as we discuss further below in paragraph 4.37, triggers should in our view also have regard to the return allowed on a particular tranche of investment.

(c) There may, however, also be a risk of perverse incentives from the use of triggers. First, triggers may make BAA reluctant to abandon a project no longer appropriate; but also provide no return within the quinquennium on alternative and possibly preferable projects that may be carried out instead. For this reason we have previously (implicitly) assumed that triggers would only be attached to projects that appear certain to be needed, as is the case with those identified in the Constructive Engagement reports. They are, however, also likely to be appropriate for projects that are generally supported and included in the CIP, but which remain dependent on factors, such as a government decision, outside BAA's control, such as rail schemes.

(d) We recommend the CAA should arbitrate if BAA and the airlines fail to reach agreement on the triggers to be applied or on the detailed specification of each trigger; and that it should continue to be involved in the event of any disagreement of whether the agreed triggers are subsequently met.

4.33 One airline suggested to us that triggers should not necessarily be used to reduce the overall level of airport charges but should be used to reduce charges to those users adversely affected by any delay to particular projects. Arguments against that approach put to us are that it could require a difficult judgement, as particular developments benefit not only users of a particular facility but other users, for example in reducing congestion elsewhere and freeing capacity to allow their traffic to grow; also that it may be more difficult to include user-specific triggers in the charging formula.

4.34 We therefore recommend that the charging formulae for Heathrow and Gatwick should be subject to an enhanced number and scale of triggers, by which the value of X would be reduced if particular projects do not meet particular milestones by a specified date. The number, specification and scale of those triggers should be determined by the CAA taking into account the outcome of further discussions between airlines and each airport.

Possible reduction in investment programme

4.35 During the inquiry BAA said in its submission to us in May 2007 and in a number of public statements that it would need to reconsider its capex programme, including

HET and other additional capex at both airports, if the regulatory settlement was based on what it regarded as an inadequate cost of capital. In its submission to us, for example, BAA suggested the investment programme at Heathrow could be reduced to as little as £500 million. We see no reason for any such reduction in the investment programme, since we have based our recommended maximum level of airport charges on what we regard as a reasonable estimate of BAA's cost of capital which should not therefore call into question its ability to deliver its capex programme from the financial resources available. But it is clearly important to ensure that, if it should subsequently reduce its capex for reasons other than efficiency improvements, it should not thereby earn a return higher than we have allowed for in our recommended maximum level of airport charges. (To the extent, indeed, that a decision on the cost of capital to be allowed for in setting airport charges is intended to provide an incentive to a particular level of investment or an acknowledgement of the wider benefits of that investment to users, a lower rate of return may be appropriate for a lower level of investment.)

- 4.36 The enhanced capex triggers recommended above, contingent on whether the promised developments are undertaken and their progress against specified milestones, provide one means to ensure that airport charges are not set on the basis of a higher capex programme than is actually carried out. Whereas triggers were previously related to the milestones on particular projects, to keep projects on track rather than to ensure they were carried out at all, their importance is likely to be greater in the next quinquennium given BAA's threat not to carry out much of its investment programme if what it regards as an inadequate cost of capital is allowed.
- 4.37 In this context, the value attached to particular triggers should also have regard to the return allowed on a particular tranche of investment (eg the 6.2 per cent return at Heathrow and 6.5 per cent at Gatwick we put forward in paragraph 4.109, converted into a percentage of airport charges). This would ensure BAA is no better off for not carrying out that investment, although in some cases the detriment to airlines of a project being delayed or not carried out at all may justify a trigger significantly larger than that. Given the significance of BAA's capex programme in setting the maximum level of airport charges in Q5, it would be appropriate for a significant proportion of revenue from airport charges to be subject to such triggers.
- 4.38 But the trigger mechanism, since it cannot realistically be applied to all projects, is unlikely to be sufficient in itself to offset the effects of any reduction in BAA's capex plans.
- 4.39 One other possible approach to this would be allowance for a variable X dependent on the overall amount of capex undertaken. But this would provide an artificial incentive to invest, irrespective of the desirability of particular projects or the scope to reduce their costs.
- 4.40 There is currently no other mechanism to relate charges to investment, or to require BAA to invest either in particular projects or the aggregate amounts assumed in setting X. In a draft statement of regulatory policy, included in its submission to us, dealing with the risks of particular financial arrangements (to which we refer further below), the CAA said that it would expect at its Q6 review to identify whether (and the extent to which) the level of investment had fallen short of that which might reasonably have been expected to have taken place had the airports adopted financial arrangements consistent with those assumed in setting the price control in Q5. If the CAA had reasonable grounds at that time to suspect a significant divergence due to financial causes as opposed to operational or business reasons, it would expect to scrutinize in more detail the execution of the investment programmes of the two

airports with a view to making retrospective adjustments for divergences between overall out-turn and projected capex that could not be fully justified.

- 4.41 One airline told us that it regarded such a five-year mechanism as inadequate, and suggested an annual progress review mechanism to include changes in capex plans and issues other than capex. The CAA, though enthusiastic for Constructive Engagement to continue, argued against the suggestion of annual review. But in our view, although the CAA's provision for the retrospective review toward the end of the quinquennium and adjustment to charges in Q6 if appropriate is important, to rely solely on such a mechanism in the next review may be insufficient to remedy the detriment to users if there was under-investment for the five years up to the next quinquennial review; and it may also be difficult then to distinguish the reasons for any under-investment.
- 4.42 In paragraph 4.26 we recommended a mid-quinquennial review be undertaken, with the involvement of the CAA, on BAA's capex processes, of planning, bench-marking and post-project review. We also recommend that such a mid-quinquennial review examine more generally BAA's capex programme and any changes made to it. This should not, in our view, relate to any reopening of the Q5 settlement, which would have an adverse effect on investment incentives, but it should inform the regulatory process for Q6. One aspect of that review could indeed be to provide assurance that any additional or alternative projects undertaken in Q5 in response to changes in airline demand would be remunerated in Q6, although the CAA may also wish to consider whether a mechanism could be introduced whereby if there was agreement that any projects to which triggers apply were no longer required the triggers relating to these projects could be modified or withdrawn.
- 4.43 But also important in our view is a continuing process of Constructive Engagement to discuss any changes to capex plans, adopting the further improvements to the processes of consultation which we have suggested should be introduced by an enhanced Annex 4 agreement. We also see benefit from the publication of annual statements on BAA's investment performance. Even if the recommendations in this and the preceding paragraph may add to the regulatory burdens on BAA and the workload on the CAA as regulator, they do, in our view, represent good practice for which the CAA should be provided with any additional resources necessary for its involvement.
- 4.44 The adequacy of the regulator's powers to ensure adequate investment may be an issue we will wish to consider in the market inquiry, during which we may also wish to assess BAA's commitment to its capex programme.

Provision for mixed mode and Runway 3

- 4.45 We noted in paragraph 2.12 that the DfT is to consult in autumn 2007 on the possible introduction of mixed-mode operations and the possible development of Runway 3 and associated terminal facilities at Heathrow. BA and some other Heathrow airlines strongly support such schemes, which may require some preparatory expenditure during Q5 but for which there is currently no provision in BAA's capital programme. Some provision for such expenditure is clearly important to ensure there is no regulatory disincentive to undertaking the initial expenditure on these projects.
- 4.46 We saw a number of suggestions for doing so. First, to create a process to amend the yield, for example by means of a mechanism to pass-through any costs associated with developing mixed mode operation or Runway 3 in Q5. BAA argued that there should be compensation during the period for costs incurred, but the CAA suggested to us that no sensible provision could be made until the DfT had

completed its consultation on mixed mode and Runway 3, without which both the cost and timing of such expenditures were highly uncertain. Secondly, for BAA to request a modification to the charging formula, but this could itself require a lengthy review by the CAA, and which may require reconsideration of other aspects of the Q5 decision and BAA's subsequent performance and other developments. Thirdly, to roll forward such expenditure (at the appropriate cost of capital) into the RAB for Q6. This is the CAA's currently preferred approach.

- 4.47 We believe it is premature for us to recommend the preferred way forward, but recommend that the appropriate mechanism should be decided after further consultation between BAA and the airlines, allowing the CAA to take into account any further views from them before taking its final decision on airport charges for Q5. All these options would clearly require continued Constructive Engagement between BAA and the airlines on the timing and cost of the preferred developments and of any expenditure during Q5 and its appropriate financing (possibly including consideration of whether there are financing options that may delay the need to recover costs until such developments become operational) given the possible scale of expenditure particularly on Runway 3.

Regulatory asset base

- 4.48 We discuss issues relating to the RAB in more detail in Appendix E. The mechanism for rolling forward the RAB was set out as part of the CAA's price control decision for Q4. We are not aware of any major methodological dispute, but a number of detailed issues needed to be considered.

Asset disposals

- 4.49 A number of issues arose concerning asset disposals.
- 4.50 Disposals of assets from within the RAB require a reduction from the RAB. As discussed in Appendix E, we agree asset disposals should for that purpose generally be valued at market value rather than the written down book value.
- 4.51 We were, however, concerned about the valuation of the transfer of certain property interests from the airport operating companies, HAL and GAL. These properties were first transferred to BAA partnership and subsequently to the joint venture known as Airport Property Partnership (APP), in which BAA retained a 50 per cent share. It is now intended to dispose of this stake in APP.
- 4.52 The CAA commissioned consultants, Atisreal, to examine whether these assets were fairly valued when transferred from the airports and removed from the RAB, which was confirmed to be the case. But the market value had increased by £50 million (£27.8 million apportioned to assets in the RAB) between the date of the transfer from BAA subsidiaries (including HAL and GAL) to the BAA partnership and the date of disposal to APP. Since the disposal to APP, the market value of these assets has increased by a further £165 million (£122 million apportioned to the RAB properties). Half of this uplift would accrue to BAA (retaining a 50 per cent share of APP) but airlines would receive no further benefit from the subsequent sale of those assets at a higher value unless the RAB was adjusted accordingly.
- 4.53 Although there is a case for reducing the RAB by a further £88.8 million (£27.8 million + £61 million), reluctantly we believe this would be difficult to justify given the view of the CAA and its consultants that the transfer from the airport companies was

reasonably valued at the time. We also recognize, however, that the CAA has no powers in relation to asset disposals, an issue to which we return in paragraph 6.55.

- 4.54 We also considered whether the deduction from the RAB of the APP assets should be made at the level of the gross proceeds or the proceeds net of capital gains tax payable on the gain. The estimated tax payable arising from the sale was about £65 million at Heathrow and £5 million at Gatwick. Income modelling indicates that the NPV of the change in airport charges arising from a sale of airport assets (equating to the NPV of the asset's cost of capital net of its net income) is equal to the airport's capital gain net of any tax on the capital gain. This would suggest that deducting the gross proceeds from the RAB would be detrimental to BAA and would also be to airlines' disadvantage if it discouraged BAA from making disposals. Accordingly, we recommend using the net proceeds measure when deducting asset values from the RAB.
- 4.55 One airline also queried whether BAA was entitled to a return on certain property assets disposed of early in Q4, since airport charges were set on the basis of an RAB which included the value of those assets. However, as the CAA also argued, the allowed return would have been after allowing for the income from those assets which would in the event not be received, hence airport charges would not necessarily have been higher as a result. We do not therefore regard it as appropriate to make any adjustment for the return on these property assets which have been disposed of. Nor do we believe it appropriate to make any adjustments for the effect on the RAB of the sale and leaseback of electricity infrastructure in the 1990s, given the time that has subsequently elapsed.
- 4.56 The CAA in its recommendations document to us raised a specific question as to how the hotel site at Terminal 5 should be valued; BAA argued this should not be at market value since income from hotels had previously been treated as outside the scope of the single till. BAA referred to our 1991 report (the relevant extract from which we reproduce in Appendix E), which followed a £14 million loss from the opening of hotels in the accounts. (There was also some discussion in our 1996 report, though in the context of why advertising, unlike hotels, should be included in the single till.)
- 4.57 The current issue does not, however, relate to the sale of an operational hotel, or to treatment of the profits from a hotel, but to the sale of a site for the development of a hotel in the same way as it would from the sale of land from the RAB for any other purpose. We do not see the disposal of land to a hotel developer as a sale of hotel assets. The land for this hotel was in the RAB, and its value can be attributable entirely to the Terminal 5 development to which it is adjacent. BAA did not bear any risk from the development of the hotel (undertaken by Arora International) but rather benefited from the increase in land value arising from the Terminal 5 development, which was totally funded by airlines through higher airport charges. Accordingly airlines should in our view receive 100 per cent of the benefit from the increase in land value of the Terminal 5 hotel site, a reduction in the RAB, net of tax, of £41.7 million.⁸

⁸At closing 2006/07 prices, BAA argued that project costs of £10.06 million should be taken into account in the RAB deduction. We have seen no evidence that these project costs were excluded from the Terminal 5 costs in the RAB for Q4 or the projected RAB for Q5 but it would be open to the CAA to reconsider this point if BAA provided such evidence to it.

Other issues relating to the RAB

- 4.58 We also considered the use of projected rather than actual depreciation in rolling forward the RAB. BAA noted in its submission to us that the higher than forecast capex at Heathrow resulted in the projected depreciation used in adjusting the RAB being lower than actual depreciation, hence increased the opening RAB. At Gatwick, lower than expected investment resulted in projected depreciation being higher than actual depreciation, reducing the opening RAB.
- 4.59 At the time of the last review, the CC was somewhat concerned about the potential mismatch between the RAB and the net book value of the assets, but concluded it was important that the RAB roll forward was consistent with the assumptions made at the time the price cap was set, and that it would be acceptable in future to roll forward RAB for projected depreciation as proposed by the CAA (paragraph 10.22(b)). We cannot therefore see any issue now about rolling forward the RAB either in Q4 or into Q5 or future periods: this should be done using projected depreciation which would be consistent with the approach adopted in Q4. We recognize that the CC did say in its 2002 report that it thought the RAB should be rolled forward in Q3 for actual depreciation. Our understanding is that the CAA did not do this in its 2003 decision, but, the CAA having chosen not to do so, there is no reason to reopen the issue relating to the Q3 roll forward issue: it would merely cause confusion and have consequences for other issues (such as Q3 Heathrow capex underspend). Moreover, for a company subject to continuing regulation, depreciation only affects the amounts different generations of consumers pay; the effects on the asset base should over time be offset by the effects on profit. We do not therefore currently see any reason to change from the use of projected rather than actual depreciation in rolling forward the RAB.
- 4.60 Some airlines queried the treatment of asset write offs without the CAA making any reduction in the RAB. The CAA argued that to do otherwise could provide a disincentive to upgrade facilities. This affects some £460 million of assets in connection with HET (mainly in Terminal 1) that would otherwise be written off, but on which a continuing return will in consequence be allowed until the end of the normal life of the asset. Treating write-offs as regulatory depreciation would imply adding them directly into required revenue as well as deducting them from the RAB. The effect would be to increase prices to customers in the short term but to reduce prices in the longer term (due to the reduction in the RAB) potentially causing price instability. It would also add additional uncertainty to the setting of the price controls. We therefore agree with the CAA's approach on this point. We also agree with the CAA's suggestion in its December 2006 initial proposals that, if in a particular instance, a write-off is the result of poor management practice or wasteful investment, it should be deducted from the RAB (without including it directly in required revenue).
- 4.61 One airline suggested that there should be an adjustment of the RAB for under-investment at Gatwick in Q4 compared with that which was expected when the charging formula for Q4 was set (ie subtraction of the return allowed on investment which did not take place). The reduction in capex largely reflected changes in airline requirements, including BA moving its hub operations at Gatwick to Heathrow, and the effect of underinvestment has been more than offset by other factors at Gatwick, with significant under-recovery on the expected rate of return. Hence, we do not currently think it appropriate to make such an adjustment to the Gatwick RAB.
- 4.62 A number of airlines argued that the value of the RAB should be adjusted for previous excess investment costs, including those suggested by the Currie & Brown study and what one airline referred to as the excess costs of Terminal 5 compared

with the industry norm. The CAA regarded such an approach as unjustified in the context of the quantum of the apparent excess or over-run: the excess investment costs identified were relatively limited (compared, for example, with what had previously been alleged) and no more than would normally be expected as business efficiency improves. There may be circumstances in which it would be appropriate to adjust for significant excess capex, in the form of excess costs or of projects or project specification clearly not wanted by users. But we do not believe that can currently be shown to be the case for investment in Q4 and to apply such an approach other than in exceptional circumstances would add to uncertainty and deter capex.

Cost of capital

4.63 Cost of capital is one of the main issues we have to consider; our detailed analysis is in Appendix F.

(a) In our 2002 report, the CC estimated a real, pre-tax cost of capital of 7.75 per cent for the three BAA London airports; the CAA adopted a 7.75 per cent cost of capital at Heathrow and Gatwick, based on a somewhat different approach to that used by the CC.

(b) In its recommendation to us, the CAA presented provisional estimates of a real, pre-tax cost of capital at Heathrow of between 5.9 to 6.2 per cent, and at Gatwick of between 6.3 and 6.7 per cent. For the purposes of modelling the illustrative price cap, it used the figures at the top end of the range, 6.2 per cent at Heathrow and 6.7 per cent at Gatwick.

(c) BAA in its submission to us submitted a range for the real pre-tax cost of capital of 7.25 to 8.25 per cent; the mid-point of the range estimated by its consultants Oxera was about 7.6 per cent at Heathrow and 7.8 per cent at Gatwick. Its financial modelling, however, was based on the rate of 7.75 per cent used in the 2002 review.

(d) Among other estimates we saw were those of Cambridge Economic Policy Associates (CEPA) who advised BA. CEPA considered revenues should be set on a post-tax basis, but estimated the most likely pre-tax equivalent figures for BAA as between 5.6 to 6.1 per cent depending on the taxation rates assumed (the figures would be somewhat lower if an automatic adjustment mechanism in relation to the cost of debt were introduced).

(e) We have estimated the cost of capital on the basis of two separate businesses (Heathrow and Gatwick), with an assumed or 'notional' financing structure. We have considered the financeability of such businesses; however, we have not formed a view on the refinancing of BAA as a whole.

(f) Our analysis and conclusions are based on the information available to us up to the finalization of our report in late September 2007. While we have taken into account changes in a number of parameters that have occurred during the course of our inquiry that impact on our conclusions, it is possible that other changes may occur after we have finalized our report which the CAA will need to take into account before reaching its final conclusions in the first quarter of 2008.

4.64 The cost of capital is the weighted average of its two components: the cost of debt and the cost of equity. The cost of debt is generally estimated using empirical evidence. The cost of equity cannot be directly observed and instead we have modelled the required returns using the Capital Asset Pricing Model (CAPM). As

explained in Appendix F, we recognize the shortcomings of the CAPM, but consider it the best analytical framework available. We also, therefore, subject our conclusions to a number of other checks.

Gearing

- 4.65 Gearing affects directly the weightings of the cost of debt and cost of equity components of the weighted average cost of capital (WACC) calculation. Gearing is also an important input to the calculation of the cost of debt and cost of equity themselves—all other things being equal, a higher level of gearing will increase the risk to both debt and equity holders, causing them to demand a higher return in exchange for making capital available to a firm.
- 4.66 In Q4 the CC set the airports' cost of capital in line with BAA's actual gearing; while sectoral regulators have more recently been setting cost of capital estimates in line with notional levels of gearing that they consider to be consistent with maintaining a solid investment-grade credit rating. During the course of this inquiry we have received views from all of the main parties on the appropriate gearing assumption to include in the calculation of Q5 price limits, the vast majority of which have been based around some sort of notional gearing assumption.
- 4.67 We considered that the airports should have regular access to the debt markets and this can be most easily achieved if they maintain investment grade credit ratings. There should also be some headroom in the rating, so that in the event of a downside shock the airports do not immediately slip to non-investment grade ratings. We therefore consider that our gearing assumption should enable the airports to maintain a solid or comfortable investment grade rating. We consider this to be a BBB+/Baa1 rating.
- 4.68 We met with the three main rating agencies in an effort to understand better what level of gearing they would consider consistent with a BBB+/Baa1 rating. These discussions suggested to us that a debt-to-RAB ratio of up to 70 per cent could, in isolation, be considered acceptable in the context of the covenanted structure that BAA is proposing to put in place. However, the rating agencies also made it clear to us that the debt-to-RAB ratio is only one of the factors they take into account when assigning ratings for regulated companies and that qualitative factors and other ratios, especially interest cover, would also have to be considered.
- 4.69 Our modelling, described in more detail in Appendix F, suggested to us that we ought to be quite cautious in our assumptions. Overall, our judgment is that our cost of capital calculations should be based on a gearing figure of 60 per cent. In practice, this may well turn out to be lower than the debt-to-RAB ratio that the airports are able to achieve when they implement their refinancing plans. We nevertheless consider the choice of a relatively conservative figure to be prudent given the uncertainties that surround the rating process and is a step towards ensuring that airports will find our price control recommendations are financeable.

Cost of debt

- 4.70 The single most important consideration for lenders when determining the rate of interest that they are willing to accept from corporate borrowers is the risk that a company will default on its debt. All other things being equal, a higher risk of default translates into a higher cost of debt as lenders demand compensation for the additional risk that they bear. This means that the cost of debt is inextricably linked to the assumed level of gearing.

- 4.71 We explored the relationship between gearing, credit ratings and the cost of debt. We reviewed historical and recent yields on A and BBB rated debt and concluded that a real cost of debt of 3.4 per cent was appropriate.
- 4.72 We also considered embedded debt costs. We have verified that our forward-looking estimate of the cost of debt is broadly in line with BAA's embedded debt costs. For this reason it is not necessary for us to consider further the treatment of either refinancing or embedded debt costs.
- 4.73 We also considered fees, and concluded that allowance should be made for the ongoing commitment, agency and arrangement fees paid respectively to lenders, rating agencies and arrangers of finance. For Q5 we concluded that an allowance of 15 basis points (bp) was appropriate, and combined with our estimate of the yield (3.4 per cent) our estimated cost of debt is 3.55 per cent.

Cost of equity

- 4.74 Most of the issues relevant to estimating the cost of capital relate to the components of the CAPM; namely, the appropriate:
- (a) risk-free rate (RFR);
 - (b) equity risk premium (ERP); and
 - (c) asset and equity beta (including any effect of gearing on the equity beta) and consideration of a debt beta.

The RFR

- 4.75 Unlike some of the other inputs to the CAPM, indicators of the current RFR can be observed directly from trading in Index Linked Gilts (ILGs). Because these securities have negligible default risk and relatively insignificant inflation risk,⁹ the yields at which the gilts are currently trading ought to be a reliable measure of the return that investors require in exchange for holding a risk-free asset.
- 4.76 We note that the ILGs yield curve is inverted which means yields on longer dated gilts are lower than on shorter dated gilts. A number of observers, including the Bank of England, have suggested that there are distortions in the market for longer dated gilts, particularly as regards the effect that Minimum Funding Requirements and FRS17/IAS19 accounting requirements have on pension funds' demand for long-term government bonds. For this reason, we believe that yields on longer dated ILGs may not be a good estimator of the RFR.
- 4.77 During the course of this inquiry we have seen a significant fluctuation on the yields on ILGs of all maturities. Based primarily on a review of five- and ten-year ILGs, our judgement was that an appropriate estimate for the RFR was 2.5 per cent. We also reviewed evidence on forward rates and international government issued index linked securities, which was consistent with our estimate of the RFR.

⁹The principal on an index-linked gilt is inflated in line with the RPI lagged by eight months.

The ERP

- 4.78 The ERP represents the additional return that investors require to compensate them for the additional risk associated with investing in equities, rather than in risk-free assets. It is not directly measurable from market data because the future cash flow from equities is uncertain. In the past, we and the sectoral regulators have used two methods to estimate the ERP: historical data showing the difference between the realized return on equities over the RFR; and forward-looking data relating to investors' current expectations of the ERP.
- 4.79 We concluded that a range of 2.5 per cent to 4.5 per cent for the ERP was appropriate. The lower end of the range is consistent with ex ante estimates by Dimson et al (2002,¹⁰ 2007¹¹) and Gregory (2007)¹² and the upper end of this range is consistent with ex-post estimates by Dimson et al (2007) of long-run historical returns.

Equity beta

- 4.80 The equity beta reflects the systematic riskiness of equity. Our approach was to measure BAA's historical equity beta and estimate the underlying asset beta (the ungeared beta). We then disaggregated BAA's asset beta to Heathrow, Gatwick and its other businesses, before re-levering to be consistent with our assumption of 60 per cent gearing.¹³
- 4.81 BAA and its advisers Oxera argued that we should treat BAA-specific data cautiously and instead give much more weight to asset beta estimates for other airport companies, as well as various types of 'bottom-up' modelling. We are not persuaded by this stance: international airports have fundamentally different risk profiles from Heathrow and Gatwick and, in particular, are subject to a different form of regulation or, in certain cases, no regulation at all. As far as the bottom-up modelling is concerned, we consider this a useful tool for estimating the relative riskiness of BAA's airports, but not the beta for BAA as a whole, which ultimately has to reflect the riskiness of BAA relative to the market.
- 4.82 Using two-year daily data we estimated that BAA's historical equity beta (at historical gearing) was 0.74. Combined with our estimate of debt beta (0.1) (see paragraphs 4.88 to 4.90) this equates to a BAA asset beta of 0.52. We note that this estimation is not sensitive to the method used because other methods, such as one and three year daily data, or five year monthly data (London Business School Risk Management Services) produce similar estimates.
- 4.83 We disaggregated the BAA asset beta into asset betas for Heathrow, Gatwick and the rest of BAA, by considering the relative riskiness of these three components of

¹⁰Dimson, E, Marsh, P and Staunton, K (2002), *Triumph of the Optimists: 101 Years of Global Investment Returns*, Princeton New Jersey: Princeton University Press.

¹¹Dimson, E, Marsh, P and Staunton, K (2007), *Global Investment Returns Yearbook, 2007*, London: ABN AMRO/ LBS.

¹²Gregory, A, (2007) How Low is the UK Equity Risk Premium? XFi Centre for Finance and Investment, University of Exeter website. www.xfi.ex.ac.uk/workingpapers/0709.pdf.

¹³We assume the following relationship when gearing and re-gearing beta.

$$\beta_a = \beta_e^h \cdot (1 - g^h) + \beta_d^h \cdot g^h$$

Where β_a is the asset beta, β_e^h is the historical equity beta, β_d^h is the historical debt beta and g^h is the historical gearing level.

BAA. In assessing the relative riskiness we considered demand risk, riskiness of the client airlines and operational leverage.

4.84 We perceived Heathrow as the lowest risk BAA airport. Its passenger numbers were less affected by the 11 September 2001 terrorist attacks (September 11), it is considered to have excess demand and its client airlines are relatively low risk. After Heathrow, Gatwick is likely to be perceived as less risky than the remainder of the BAA group. It is a regulated business, subject to five-yearly resets of price caps, and has been shown to face less demand risk than BAA's third major airport, Stansted.

4.85 We would expect the systematic risk of Gatwick to be higher but not substantially higher than Heathrow. We therefore used an asset beta for Gatwick which is 0.05 higher than for Heathrow. Our asset beta estimates for the individual component businesses are as follows:

(a) Heathrow—0.47;

(b) Gatwick—0.52; and

(c) other businesses—0.61.

4.86 The final step in the calculation involves re-levering our asset betas into equity betas for companies with 60 per cent gearing. Table 9 sets out the final estimates.

TABLE 9 Estimates of equity betas for Heathrow and Gatwick at 60 per cent gearing

	<i>Mid-point</i>	<i>Low</i>	<i>High</i>
Heathrow	1.03	0.90	1.15
Gatwick	1.15	1.00	1.30

Source: CC analysis.

4.87 Table 9 presents a range based on two standard errors around the mid-point estimate. This confidence interval recognizes that our original historical equity beta estimate is subject to a degree of measurement error and that it would be imprudent for us to rely solely on point estimates in our overall WACC calculation.

4.88 We considered the appropriateness of using a non-zero debt beta. Conceptually we believe that the beta of debt is not zero over the range of gearing that we have considered. We believe that debt is exposed to systematic risk, and that this is one reason why providers of debt require a return in excess of the RFR. We also considered whether estimating the debt beta was necessary for the purpose of estimating the equity beta. Our estimates of the Q5 equity beta of BAA are rooted in the historical equity beta. Gearing of BAA whilst listed (the period over which we have estimated the equity beta) was significantly lower than the gearing that we have used in our cost of capital estimate. If we re-gear our equity beta from the historical level of gearing to the notional Q5 level of gearing we need to estimate the amount of the additional exposure to systematic risk that accrues to debt and the remainder that accrues to equity. Assuming a debt beta of zero when increasing gearing over-rewards equity by implying that all additional exposure to systematic risk which gearing brings accrues only to equity.

4.89 We then considered whether debt beta could be estimated with sufficient accuracy. We consider two methods of estimating the debt beta:

(a) disaggregating the debt premium; and

(b) direct estimation from regressing bond returns against market returns.

- 4.90 We concluded that disaggregating the debt premium was the most robust way of estimating the debt beta, and by this method we estimated that the appropriate debt beta is in the range of 0.09 to 0.19. Because this is the first inquiry in which we have carried out a detailed analysis of the debt beta, we consider it appropriate to choose cautiously from within this range. The subsequent analysis uses a point estimate for the debt beta of 0.1, ie towards the bottom-end of the range.

Taxation

- 4.91 We considered two broad taxation issues. First, we considered whether it is appropriate that the CAA continue with a pre-tax WACC approach, or whether it should switch to a vanilla WACC.¹⁴ Our view is that the CAA should continue with the pre-tax approach in Q5. The benefit of the vanilla WACC approach is that tax expense can be explicitly modelled (similar to opex); however, at the present time there is significant difficulty in modelling BAA's future tax. For Q5 we recommend that CAA continues with a pre-tax WACC based on the statutory rate; however, we also recommend to the CAA that it considers consulting the relevant parties during the course of Q5 whether a change to a vanilla WACC approach in Q6 would be appropriate.

- 4.92 Second, we considered what was the appropriate tax rate to use in the pre-tax WACC approach:

(a) the statutory rate, which is currently 30 per cent but is expected to be 28 per cent from April 2008; or

(b) the effective tax rate.

- 4.93 The same modelling difficulties led us to conclude that we should continue with the statutory rate in Q5. The appropriate statutory rate is 28 per cent. We would not, however, rule out our successors considering a switch to an effective tax calculation in future quinquennia provided that they felt confident that future forecasts of tax were reasonably accurate and the CAA adjusted for the pre-funding that the airports have received as a result of the use of the statutory rate in previous years.

Overview of risk and the cost of capital

- 4.94 We considered whether our cost of equity estimate and CAPM adequately captured the risks faced by BAA and whether, if not captured in the CAPM they were adequately allowed for elsewhere.
- 4.95 We first considered whether the risks were systematic or non-systematic (idiosyncratic). We then considered whether any systematic risks were adequately allowed for in our CAPM-based estimate of the cost of equity. To the extent they were non-systematic or idiosyncratic we then considered whether they were adequately captured elsewhere in our calculations.

¹⁴We use the term vanilla WACC to mean the WACC calculated using the pre-tax cost of debt and the post-tax cost of equity.

Business risk and catastrophic risk

- 4.96 BAA told us that it was exposed to catastrophic risk, and that such risk was not captured in the CAPM because it was either downside-only risk or because the consequences of the risks were asymmetric. They argued that this asymmetry was exacerbated by the capacity constrained nature of Heathrow.
- 4.97 We considered whether the events suggested by BAA as catastrophic risks, such as the two Gulf wars, the 11 September 2001 terrorist attacks, SARS, the 7 July 2005 bombings, the August 2006 terrorist plot, communicable diseases, natural disasters, geopolitical upheaval, and technological failures of either aircraft or airport systems were catastrophic risks or business risks.
- 4.98 Whilst we accept that these were all significant events, we believe them to be business risks to which investors would expect an international airport to be exposed. Unlike these business risks, we consider catastrophic events to be low frequency and high impact in terms of rendering an airport inoperable for a sustained period. These events highlighted by BAA are not infrequent (four in the last five years) and not high impact (as Oxera notes, these events have not threatened the overall activities or viability of BAA). We also noted that Standard & Poor's (S&P), one of the major credit ratings agencies, said that 'Historical trends have demonstrated the stability of aeronautical activity at BAA's airports and the increasing resilience of passenger demand behaviour to external shocks'. (S&P's rating of BAA 21 August 2007.)
- 4.99 We then considered whether the CAPM adequately captures the systematic element of these business risks. First, our estimate of beta is based on a time period which covers many of these events. Secondly, we noted that the CAPM models expected returns, and investors will expect that such events may occur and factor this into their required expected returns accordingly. The non-occurrence of such events will have a positive impact on their actual returns compared with expected returns. We consider that these risks can, therefore, have an upside.
- 4.100 We acknowledge that there have been a number of adverse events affecting volume and these are reflected in our volume assumptions for BAA. We certainly do not regard them as catastrophic. We also noted that our Q5 volume assumptions are now lower than they were five years ago (on average 8 per cent lower for Heathrow and 10 per cent lower for Gatwick).
- 4.101 We note that if business risk were as high as BAA has suggested (due to these events) then such a company would be likely to choose a lower level of gearing so that the financial risk would not exacerbate the high business risk. However, we note that BAA increased gearing prior to the Ferrovial takeover, and post takeover has geared up further. We do not believe that this is the action of a company which regards itself as facing high business risk.
- 4.102 We consider that the cost of capital cannot capture the risks associated with truly catastrophic events, for example a terrorist event which rendered much of Heathrow unusable for a significant amount of time. In the event of a truly catastrophic event we consider it to be outside the framework of economic regulation. We expect that the CAA would intervene and that a recovery plan would be agreed between the CAA, BAA, airlines and probably the Government.

Project risk

- 4.103 We considered whether project risks, such as HET, increased BAA's exposure to systematic risk. We believe that for an airport company such as BAA, which plans,

builds and operates airport infrastructure, the risk is a mixture of systematic risk and idiosyncratic risk. The idiosyncratic risk is more appropriately allowed for in the estimation of the cash flows for the individual projects and by taking into account the risk characteristics of the projects as a whole (see Appendix D). On each individual project, an additional contingency of 25 per cent of the pre-contingency costs is added to cover the risk of cost overruns. Furthermore, assets under construction are included in the RAB as the expenditure is incurred, and thus they earn an allowed return (WACC) which includes a return for risk. This is to allow for the systematic risk component. S&P, the major credit rating agency has noted that this allowance considerably reduces the construction risk.¹⁵

Conclusions

4.104 Our resulting estimates in Appendix F for each of these components, compared with those of BAA and the CAA is shown in Table 10.

TABLE 10 The components of WACC—estimates of CAA, BAA, and CC

	<i>per cent</i>											
	CAA				BAA (stand-alone)*				CC Heathrow		CC Gatwick	
	Heathrow		Gatwick		Heathrow		Gatwick		Low	High	Low	High
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Gearing†	60	60	60	60	55	55	55	55	60	60	60	60
Pre-tax cost of debt	3.0	3.0	3.0	3.0	2.49	3.56	2.70	3.68	3.55	3.55	3.55	3.55
RFR‡	2.0	2.0	2.0	2.0	1.75	2.5	1.75	2.5	2.50	2.50	2.50	2.50
ERP	4.5	4.5	4.5	4.5	3.50	5.0	3.50	5.0	2.50	4.50	2.50	4.50
Equity beta§ (number)	1.13	1.26	1.30	1.48	1.26	1.62	1.33	1.69	0.90	1.15	1.00	1.30
Post tax cost of equity	7.1	7.7	7.8	8.7	6.17	10.61	6.42	10.94	4.75	7.68	5.00	8.35
Taxation	30	30	30	30	30	30	30	30	28	28	28	28
Pre tax cost of equity	10.1	11.0	11.2	12.4	8.82	15.16	9.17	15.63	6.60	10.66	6.94	11.60
Pre-tax, real WACC	5.9	6.2	6.3	6.7	5.34	8.78	5.61	9.06	4.77	6.39	4.91	6.77
'Uplifts'		N/A		N/A		0.5		0.5		N/A		N/A
Point estimate		6.2		6.7		7.56		7.83		6.2		6.5

Source: CAA proposals, Oxera report (on behalf of BAA) and Appendix F.

*BAA estimates are on a 'bottom-up' basis for the two airports separately.

†Oxera (for BAA) the WACC based on a notional uniform gearing of 55 per cent.

‡During the course of the inquiry BAA updated its RFR estimate to 2.6 to 3.0 per cent.

§BA assumes gearing of 55 per cent.

4.105 The confidence interval represented by the combined component estimates is likely to be higher than that implied by the confidence intervals for the individual components. For example, suppose the ranges for individual components are 95 per cent confidence intervals. When the values at the top and bottom of the ranges for these components respectively are added up to give a range for the overall WACC, statistically the resulting confidence interval is likely to be higher than 95 per cent.

4.106 Given the uncertainties in cost of capital estimates, we considered the cost of setting an allowed WACC that was too high or too low. If the WACC is set too high then the airports' shareholders will be over-rewarded and customers will pay more than they should. However, we consider it a necessary cost to airport users of ensuring that there are sufficient incentives for BAA to invest, because if the WACC is set too low, there may be underinvestment from BAA or potentially costly financial distress.

¹⁵Assets under construction are remunerated during the course of construction at the regulatory cost of capital. This mechanism has significantly reduced risk in the Terminal 5 investment' (S&P's Rating Direct dated August 21, 2007, p9, submitted by BAA under BAA/CC/2007/414, September 2007).

Annex 5 to Appendix F illustrates how the weight to be put on these costs will flow into the decision-making process.

- 4.107 Given the significance to customers of timely investment at Heathrow and Gatwick, we have given particular weight to the cost of setting the allowed WACC too low. Most importantly, we note that it is difficult for a regulator to reduce the risks of underinvestment within a regulatory period.
- 4.108 Taking these factors into account, we concluded that the allowed WACC should be set close to the top of our range.
- 4.109 Accordingly, we recommend that the appropriate cost of capital at Heathrow is 6.2 per cent and at Gatwick is 6.5 per cent for Q5. We have taken great care not to take a figure that is too low. We believe that 6.2 per cent at Heathrow and 6.5 per cent at Gatwick fully take into account the systematic risks facing the two airports.
- 4.110 These estimates represent numbers which are only 10 to 15 per cent below the top of our range and approximately two standard errors above the mid-point of our range.¹⁶
- 4.111 In terms of the post tax cost of equity estimate, the WACC point estimate of 6.2 per cent for Heathrow corresponds to a cost of equity of 7.33 per cent and the WACC point estimate of 6.5 per cent at Gatwick corresponds to a cost of equity of 7.87 per cent.

Q4 uplifts

- 4.112 In the CC's Q4 recommendation to the CAA the mid-point of the WACC range (7.21 per cent) was uplifted by an ERP smoothing adjustment (0.25 per cent) and a Terminal 5 adjustment (0.25 per cent) to give a cost of capital of 7.75 per cent. Whilst these uplifts were recommended by the CC they were not adopted by the CAA; instead the CAA adopted a holistic approach, using the same number as the CC (7.75 per cent) which was towards the higher end of the CC's recommended range but without reference to any specific uplifts.
- 4.113 The Q4 estimate for the ERP was 2.5 to 4.5 per cent, a reduction from the ERP ranges used by the CC (and its predecessor, the MMC) in two regulatory inquiries prior to the Q4 report. The Q4 report stated that a 'smoothing of the downward trend in the ERP would be appropriate, an approach which would also help prevent volatility in the short term' (paragraph 4.69 of the Q4 report). However, we note that the Q5 ERP range is the same range that was used in Q4, and therefore we consider that an explicit smoothing adjustment is no longer appropriate.

Terminal 5 uplift

- 4.114 The Q4 report identified four special risks factors linked to Terminal 5 which could have affected BAA's cost of capital. BAA told us that although the CC cannot bind its successors, the two uplifts should also be applied to Q5, on the basis that:
- (a) There was an understanding that the Q4 uplifts were to remain in place for two quinquennia (Q4 and Q5). BAA told us that, as documented in board papers and minutes, there was an expectation by BAA management at the time of the Q4 determination that the uplifts were for ten years. We acknowledge that there is a

¹⁶After making some simplifying assumptions about the nature of the distribution around the component estimates.

tension between setting the cost of capital for five years at a time and the long economic life of some of BAA's assets (eg 40 years or more); however, no commitment was given by the CC in Q4 for the continuation of the uplifts in Q5 and nor could there have been.

- (b) The increased risks arising from Terminal 5 will not be eliminated at the start of Q5.
- (c) A change in regulatory approach would undermine the basis on which investment has taken place.
- (d) HET posed significant construction risk, and unlike Terminal 5, additional operation risk as the construction is in a live environment.

4.115 To the extent that Terminal 5 and HET pose additional systematic risk, not captured in the CAPM and WACC we consider the appropriate treatment is to choose a point estimate close to the top end of the range of the WACC, rather than to continue with an explicit uplift. This approach is consistent with the CAA's price determination in Q4.

4.116 Although we are not explicitly including an uplift from the mid-point of the range, we are choosing a point estimate towards the upper end of the range, that is approximately 60bp¹⁷ higher than the mid-point at both Heathrow and Gatwick, and within 19bp and 27bp of the top of the range for each airport respectively.

Benchmarking our Q5 estimate with other estimates

4.117 We have used the CAPM because as noted in Appendix F it is the best intellectual framework there is but in doing so we fully recognize its shortcomings. It is, however, only a framework which provides us with a basis on which to take informed, reasoned, robust and realistic decisions. Therefore as well as a detailed assessment of each individual component of the WACC, we also have performed a number of critically important sense checks which not only assisted in reaching such decisions but also in determining how robust and realistic they are, in particular the following in relation to the cost of equity and the cost of debt.

- *The cost of equity*

4.118 We have assessed our cost of equity in the context of decisions of sectoral regulators, whilst at the same time making informed judgements on the relative riskiness (from the perspective of equity investors) of the different businesses/sectors.

4.119 In Annex 4 to Appendix F, we have reviewed the market to asset ratio (MAR) estimated from the acquisition value of BAA. However, we are unable to draw any more precise conclusions from this analysis for the reasons set out in that annex.

- *The cost of debt*

4.120 We have both directly observable market evidence, and have obtained qualitative and quantitative evidence from investment banks and thus we are able to reach relatively straightforward decisions on this component.

¹⁷In Q4, the CAA's final determination used a WACC which was 54bp above the mid-point.

Comparison with Q4

4.121 Table 11 provides a summary of the estimates obtained from the preceding analysis, along with a comparison with the estimates contained in the CC's Q4 report. The table shows that our Q5 estimates of the cost of debt, RFR, asset beta and corporation tax rate are lower than the CC's Q4 recommendations, while the ERP is unchanged and the gearing level is higher.

TABLE 11 Summary of parameters and comparison to figures contained in the CC's Q4 report

	<i>per cent</i>		
	<i>Heathrow Q5</i>	<i>Gatwick Q5</i>	<i>Q4 report</i>
Gearing	60.00	60.00	25.00
Pre-tax cost of debt	3.55	3.55	3.40–3.95
RFR	2.50	2.50	2.50–2.75
ERP	2.50–4.50	2.50–4.50	2.50–4.50
Equity beta (number)	0.9–1.15	1.0–1.3	0.8–1.0
Taxation	28.00	28.00	30.00
WACC range	4.77–6.2	4.91–6.77	5.67–8.76

Source: CC analysis.

4.122 The Q4 WACC was estimated for all three regulated airports (Heathrow, Gatwick and Stansted). For the purposes of Q5, the CAA has proposed that the WACC is estimated separately for Heathrow and Gatwick. Our Q5 recommendations to the CAA reflect a number of changes in observable data since the CC produced its Q4 report. In particular:

- (a) yields on corporate bonds and index-linked gilts have remained low, justifying small reductions in our estimates of the cost of debt and the RFR;
- (b) BAA has significantly increased its gearing level, mirroring a trend increase in gearing across the utility/infrastructure sector; and
- (c) contrary to our expectations, BAA plc's equity beta remained well below the range that we had assumed in our Q4 report prior to the company's takeover in 2006.

4.123 On this final point, the Q4 report deliberately and explicitly recommended an equity beta significantly above the market evidence that was available to the CC at the time of the inquiry. We expected BAA's equity beta to increase during Q4 as a consequence of the 11 September 2001 terrorist attacks and the large CIP that BAA was about to undertake.

4.124 This increase did not, in fact, materialize. Instead, BAA's asset beta appears to have fallen slightly. Our choice of lower asset betas for Q5 therefore reflects two distinct factors that suggest a somewhat lower cost of capital would be appropriate in Q5 relative to Q4, ie:

- (a) the elimination of the over-estimation from the Q4 report; and
- (b) the actual reduction in BAA's asset beta in the period to 7 February 2006 (the last day before Ferrovial announced its bid).

Depreciation

4.125 There is a doubling of the depreciation charge at Heathrow in Q5 relative to Q4, which feeds directly into the Q5 revenue requirement. This arises largely from the anticipated completion of Terminal 5 at the beginning of the control period. We discussed a number of points concerning depreciation under the RAB, but saw no reason to question the basis of BAA's calculation of Q5 depreciation.

Operating costs

4.126 Our analysis of operating costs is set out in Appendix G. As shown in Table 3 of Appendix G, the gap between the BAA and the CAA projections has widened since the CAA's December 2006 proposals. The CAA reduced its operating cost projections in its March 2007 Recommendations to us; and BAA increased its projections in its May 2007 submission to us and again in its revised forecasts in July 2007. The resulting difference between BAA's latest projections and the CAA's recommendations of March 2007 has a significant effect on the size of X:

(a) The CAA's initial proposals to us allowed £3,533 million over Q5 for operating costs at Heathrow and £1,095 million at Gatwick. Over the five years of Q5, these were some £269 million lower than the £3,802 million forecast operating costs for Heathrow set out in BAA's September 2006 regulatory submission to the CAA; and £70 million lower than the £1,165 million forecast for Gatwick. (All costs in this section of the report are at 2007/08 prices.)

(b) In its submission to us in May 2007 BAA forecast operating costs of £4,021 million at Heathrow, subsequently increased in July 2007 to £4,123 million; and £1,279 million at Gatwick, subsequently increased to £1,329 million.

(c) A number of airlines have argued that there is more scope for cost reduction than assumed by the CAA. BA, for example, argued that there was potential for more demanding operating savings through Q5 amounting to a further 6 per cent on Q5 operating costs at Heathrow compared with the CAA recommendations, enabling X to be reduced by 2.1 percentage points; it also argued that there was scope for similar percentage savings at Gatwick.

4.127 The CAA's general approach to analysing opex was to estimate the amount to be allowed for operating costs first by establishing a trend 'baseline' level of operating costs for 2005/06; secondly by estimating the corresponding costs needed in subsequent years by 'rolling forward' this baseline to reflect volume growth and potential efficiency improvements, and thirdly by adding any one-off expenditure and costs excluded from the baseline such as security costs, pensions and utilities which were subject to specific factors. Those costs were analysed separately and an allowance for them (including, where appropriate, assumed efficiency improvements) was added to the projected level of baseline costs. This approach to estimating the amount of opex an efficient operator would need is commonly adopted by regulators and we regard it as preferable to accepting BAA's estimates based on assessing all cost items on a bottom-up basis in each year since it encourages BAA to achieve an efficient level of costs and allows a clearer analysis of underlying cost trends and particular factors affecting costs. The adoption of different methodologies did, however, significantly complicate the process, for ourselves, the CAA and BAA, of identifying the reasons for the differences between the operating cost projections of BAA and the CAA, which BAA was only able to do at a very late stage of our inquiry and even then incompletely. As BAA raised a number of points concerning detailed aspects of the analysis at that stage, the CAA will need to consider these further before making its final determination.

4.128 We therefore have to consider:

- (a) what the baseline level of operating costs at each airport should be;
- (b) what annual rate of efficiency improvement should be assumed; and
- (c) how costs in subsequent years should be adjusted to reflect volume growth;
- (d) what one-off costs should be allowed for separately.

The baseline level of costs

4.129 BAA proposed that, if we were to apply the CAA's methodology, a number of adjustments should be made to the baseline, in particular:

- (a) Use of 2006/07 costs rather than the 2005/06 costs used by the CAA as the baseline, thus including in the baseline any increase in BAA's costs between those two years, and applying the CAA's assumed annual cost reductions for one less year. We accept the argument of the CAA that it is more appropriate to use 2005/06 opex as the baseline since the CAA had subjected these costs to detailed scrutiny to eliminate atypical costs and they had formed the basis both for the CAA's consultants' studies and the efficiency adjustments derived from them. Cost increases in 2006/07 (as in subsequent years) could nonetheless be separately considered on their merits as adjustments to be applied to the rolled-forward baseline costs in the third stage of the analysis.
- (b) Exclusion of some further costs from the baseline currently included by the CAA, particularly rates, to which the underlying efficiency assumption would not then have applied. We have accepted this exclusion in the case of rates.

4.130 Included in the CAA's baseline costs are intercompany charges. Following a report it had commissioned from LECG Ltd, the CAA also made two adjustments for inter-company charges (which represent a very high percentage of the difference between the numbers used by BAA and the CAA). The adjustments were first to remove the 'capping' by BAA of the allocation of central costs to particular unregulated businesses which increases the costs allocated to Heathrow and Gatwick; and secondly the removal of the BAA's 7.5 per cent profit 'mark-up' applied to the allocated central costs. During the course of our inquiry BAA's projections for these costs increased further.

4.131 BAA told us that the decision to 'cap' the allocation of central costs to Scotland and Southampton and to reallocate the cost to the three regulated airports had been driven by its current re-financing. Without a cap and with all corporate costs allocated, the level of costs allocated to Scotland and Southampton meant that those non-designated businesses could not raise sufficient debt, demonstrating that the level of corporate cost allocation to Scotland and Southampton was too high. But the reduced level of allocation also reflected the reality that the main users of corporate services were the designated airports. It also argued that the 'mark-up' charged represented a reasonable return that any third-party supplier would expect from such services.

4.132 The refinancing requirements of the non-designated airports should not in our view be a factor relevant to allocation of costs to the designated airports. Nor do we believe it appropriate for BAA to charge a mark-up on services supplied by another part of BAA which, in effect, transfers profit out of the regulated business, thereby

increasing charges to users. In our view, the CAA should make the adjustments it proposed.

- 4.133 BAA estimated the total of the two adjustments above is £78 million at Heathrow over Q5 and £28 million at Gatwick.
- 4.134 We have, however, allowed for an additional allocation to each airport of corporate head office costs, previously unallocated to the separate BAA businesses: some £55 million at Heathrow and £17 million at Gatwick over Q5. BAA told us that it did not have an adequate cost allocation system for allocating these activities to the two airports. Hence we considered whether any allowance should be made for such costs. These are, however, costs which have to be borne: to the extent they can be directly related to the activities of the two airports, to exclude them would put at risk the airport's ability to earn the return on capital we have assumed. But in our view the CAA should satisfy itself that the allowance we have made represents a reasonable allocation of such costs to each of the airports. We have not, however, included an element of other corporate overheads for which no details were provided to us.
- 4.135 Some airlines also considered there was scope for contracting out parts of BAA's IT activities. The report by KPMG LLP (KPMG) into IT costs found the underlying costs of BAA's IT infrastructure operation to be in line with or better than KPMG's benchmark averages, but it would be appropriate at least to establish whether BAA's in-house costs are reasonable by market testing IT activities: we return to this in paragraph 6.61.

Annual rate of efficiency improvements

- 4.136 As noted in paragraph 4.127, the CAA applied an assumed annual rate of efficiency improvements both to its baseline costs and to other cost items. The CAA commissioned a number of consultancy projects as part of its assessment of the scope for efficiency improvements:
- (a) A Booz Allen Hamilton (BAH) process benchmarking report on BAA's security costs identified on the basis of data for 2005 some potential for efficiency and/or effectiveness improvement for all processes examined. For example, it suggested substantial scope for productivity improvements in passenger screening at central search at all Heathrow and Gatwick terminals of between 5 and 12 per cent by increased flexibility of rostering, and from reductions in levels of absenteeism, but acknowledged that subsequent changes in security processes meant that this quantitative assessment was no longer likely to be valid. Scope for improved efficiency was also found in other processes, including trolley management and airside and perimeter security.
 - (b) A Thomson IDS (IDS) study of employment costs for the CAA found that security staff were paid at the upper quartile for jobs of similar weight within the relevant regional labour market; engineering technicians and senior managers between the median and upper quartile; and administrative-type support staff and supervisory and managerial staff at the lower grades between the median and lower quartile. But it also noted that it would expect to see airport security staff at busy international airports to be in the upper part of the earnings distribution. IDS also found that the average number of days lost per employee owing to sickness was significantly above the national average and that BAA's pension scheme was unusually generous.
 - (c) The KPMG report on the finance and facilities management costs of BAA concluded that the finance function was generally relatively efficient with salary

costs broadly in line with market rates, but with scope for further savings of between zero and 6 per cent over the next few years. KPMG found that although BAA's facilities management was relatively efficient compared with its benchmark, there was scope for efficiency improvements of between 1 and 7 per cent of property costs.

Based on the evidence in these reports, the CAA allowed for 1 per cent a year efficiency improvements, applied to all categories of cost, including manpower. This was applied to the baseline level of costs from 2005/06; and to the additional security costs treated as adjustments to the baseline.

- 4.137 We commissioned BAH to update their efficiency assessment of the passenger security process given the significant change in security regimes since their report. At Gatwick, based on analyses of a July 2007 sample week, workload demand had increased significantly more than staff supply, and efficiency (taking into account the additional security procedures required) improved by about 1 to 1.5 per cent from the 2005 results. But this was to some extent due to the delay in recruiting more staff, and the increased use of overtime providing shorter shift coverage; where utilization had improved, this had also been at the expense of service delivery. At Heathrow utilization (based on analyses of a July 2007 sample week and compared with the 2005 sample week) had increased by about 4 per cent. There had also been a considerable improvement in meeting service standards at Heathrow, although still some periods when they were not met. Absenteeism, however, had increased since the IDS report for the CAA—to 18 man days lost per year at Heathrow and 17 at Gatwick compared with between 11 and 15 a year earlier (at the terminal level) and an average of 8 and 6.6 in surveys by the Chartered Institute of Personal Development (CIPD) and the Confederation of British Industry (CBI) respectively. Overall BAH believed there was now somewhat less scope for productivity improvements than at the time of its earlier report, but nonetheless still suggested potential efficiency savings of between 5 and 10 per cent for the central passenger search process at the two airports, attainable through a continual improvement process. We therefore suggest that in applying the 'S factor' during Q5 the CAA should take account of the efficiency adjustment applied to those costs.
- 4.138 Among airlines' criticisms were that the CAA has assumed a level of efficiency improvement below that assumed by other regulators; that the benchmarking studies suggested further scope for productivity improvement than assumed by the CAA; that BAA productivity trends are significantly worse than those achieved by the airlines; and that there is scope for market testing and contracting out of more functions carried out in-house by BAA, including security processes. On this latter point, for example, the Heathrow AOC (airline operators committee) sent us proposals from three commercial security companies which suggested scope for significant cost reductions, from more efficient working methods, flexible rostering and lower labour costs. Some airlines also objected to BAA's adoption of a higher standard for security queues (discussed further below) and the additional costs that would result. We consider it highly regrettable that BAA has not itself market tested more of its activities including its security operations; however, we cannot be confident that those proposals submitted by the HAOC take full account of all the operational constraints faced by the airports security functions and that savings of such a scale would be achieved in practice.
- 4.139 The CAA appears to have erred on the side of caution in using the results of the BAH and IDS studies. In Appendix G, we note the following further evidence which provides the basis to assume a greater scope for efficiency savings than assumed by the CAA:

- (a) The apparently poor productivity performance particularly at Heathrow in Q4.
- (b) The McKinsey & Company (McKinsey) study commissioned by BAA, not explicitly allowed for in its projections (although BAA argued that the results of the McKinsey study represented one means to bring about the general efficiency improvements assumed).
- (c) Ferrovial's pre-acquisition business plan, of 'optimal opex' 15 per cent below 2005 levels at Heathrow and 30 per cent at Gatwick, although BAA argued that this had been prepared without access to confidential data.¹⁸ The scope for efficiency gains was also mentioned in BAA's pre-acquisition defence documents.
- (d) BAA's reference to the 'peace premium' affecting pay and other manpower issues ([§<]).
- (e) High absenteeism, as acknowledged in BAA's management reports.
- (f) The suggestions of some airlines that more functions including security and IT should be contracted out.
- (g) BAA's own consideration of contracting out some security activities (staff search) and the practice of some other airports of doing so although BAA currently has no plans to outsource security.
- (h) The cost reductions achieved by airlines; although the cost structure of airlines is significantly different from that of BAA, the savings of as much as 5 per cent a year quoted to us do seem indicative of the more considerable competitive pressure to which they are subject and the action by management to respond to this.

4.140 We do not consider that the CAA's assumption that there is scope for 1 per cent a year improvement in baseline operating efficiency is sufficient. We believe that several pieces of evidence suggest that there is scope for faster efficiency gains and that the regulatory regime to date has provided insufficient incentive to improve operating efficiency, and that somewhat greater incentives to reduce opex may therefore be needed. These include the consultancy studies commissioned by the CAA, the work carried out by McKinsey for BAA and the pre-acquisition business plan prepared by Ferrovial. In addition, we believe that some of the suggestions for improving BAA's efficiency made by various airlines are worth considering. BAA might, in particular, be able to achieve the faster improvements in its efficiency we believe possible by improved rostering, tackling its high levels of absenteeism, making its working practices more flexible, improving the structure of the incentives given to its executives and market testing more services. We have therefore applied an efficiency adjustment of 1.5 per cent a year to baseline opex (with effect from 2005/06). (Such an efficiency adjustment is, however, additional to the implicit economy-wide improvements in efficiency incorporated in the RPI.)

4.141 In practice, the efficiency assumption we adopted seemed broadly consistent with the productivity improvements identified in BAA's submission as a result of various change programmes. At Heathrow, these amounted to 764 man-years over Q5 as a whole (from a total of 4,468 in 2006/07); and at Gatwick 439 (from a total of 1,866 in

¹⁸We have also noted that in the Altitude Assets plc prospectus of 12 June 2006 p38, ADI on behalf of the Ferrovial Consortium stated its belief that there were a number of possible ways to improve BAA's business which could deliver significant benefits to users in the medium to long term. It would look at reducing overheads, outsourcing certain functions where appropriate and improving procurement practices. ADI believed that, historically, BAA had not focused sufficiently on ensuring all possible efficiencies were realized for the benefit of users.

2006/07). But at Heathrow these are more than offset, and at Gatwick partly offset, by additional security staff and other requirements: which we considered under 'one off costs' below. Hence at Heathrow man-years increase to [X] in 2012/13; at Gatwick they only reduce to [X] in 2012/13. BAA's specific change programmes were, moreover, primarily in managerial grades. (Staff costs are, however, less than one-third of our baseline.)

Effects of airline growth

4.142 We have adjusted operating costs by increasing them in proportion to the increases in passenger numbers compared with 2005/06 shown in our traffic forecasts considered below, multiplied by a growth factor of 0.3 but this adjustment does not have a material effect on the projections.

One-off costs

4.143 We consider that the CAA's treatment of the cost items that it allowed for separately (for example, security costs, the net cost of opening Terminal 5 and closing Terminal 2, night-noise costs, the cost of the Heathrow Express and pension costs) is broadly sound, although we have revised the treatment of several of these cost items to take account of more up-to-date information. In particular:

(a) Additional security costs, including the most recent BAA projections of additional costs not only to meet the current service standards but also to meet an improved security standard adopted by BAA, that queue lengths should not exceed 5 minutes for 95 per cent of the time (see paragraph 6.40). We considered whether to disallow these costs, given that airlines were opposed to this revised standard and that BAA, as it acknowledged, failed to consult with them, although the revision was supported by the CAA. On the other hand, increased expenditure is likely to be desirable, first to improve the resilience of BAA's security operation, which has been the source of extensive criticism by airlines and others; and secondly to meet the additional security standards we recommend in paragraph 6.33 et seq. As we note in paragraph 6.34, revisions to the current security service standards are subject to further consultation between BAA, the CAA and the airlines, following which we recommend that the CAA examine the appropriate level of security costs to be allowed for in airport charges to take into account the final standards agreed for the SQR.

(b) A significant increase in the operating costs of Terminal 5, net of the savings from closing Terminal 2 in line with BAA's latest estimates. We were surprised at the scale of the increase in opex associated with the opening of Terminal 5 (to which we also referred in paragraph 4.19(c)), even allowing for the closure of Terminal 2; although we saw insufficient reason to disallow this, we recommend that the CAA also examine this increase in costs closely.

We have based our estimate both of security costs and of the additional costs of opening Terminal 5 net of the savings from closing Terminal 2 on BAA's latest estimates. We have, however, in the light of work carried out for us by BAH, applied an annual efficiency adjustment of 1.5 per cent to security costs with effect from 2008/09. We have also applied the 1.5 per cent a year efficiency adjustment which we concluded (in paragraph 4.140) was appropriate more generally to the net costs of opening Terminal 5 and closing Terminal 2 with effect from 2008/09.

4.144 We have also allowed for a number of further cost items, namely business rates and the operating costs of:

- (a) BAA's 'fix-the-basics' programme which provides for improved maintenance and cleaning (at both airports);
- (b) opening satellite C of Terminal 5 at Heathrow;
- (c) opening HET and closing Terminal 1;
- (d) bussing associated with the proposed outer pier at Heathrow;
- (e) one-off retail arrangements associated with opening Terminal 5 and the HET;
- (f) the impact of the increased capital programme at Gatwick on maintenance costs;
- (g) the Energy Performance of Buildings Directive (Directive 2002/91/EC on energy performance of buildings) at both airports;
- (h) the CAA and CC costs associated with the Q6 regulatory review of both airports;
- (i) noise compensation associated with the community buildings noise insulation scheme at Heathrow and the night noise scheme at both airports; and
- (j) the full allocation of corporate head office costs to BAA's businesses, which affects both airports.

4.145 Although our projections allow for BAA's latest estimates of the operating costs associated with the above items and of business rates and the Heathrow Express, BAA's claim for many of these costs to be treated as additional one-off items was received at a very late stage in the inquiry. There has consequently been no independent verification of some of the costs and we consider that they need further detailed scrutiny by the CAA with the assistance of an accounting firm before being allowed for in the final price determination. In future reviews, such claims for 'one-off' items should be subject to similar detailed verification at an earlier stage of the process.

Pension costs

4.146 The CAA also raised with us a number of issues concerning pensions which we set out in more detail in Appendix H, namely:

- (a) Whether the pension costs allowed should be on the basis of the anticipated service costs, or anticipated cash contributions to the pension fund each year or on the anticipated pension charge to the profit and loss account, which takes into account investment gains on fund assets and interest costs on fund liabilities.
- (b) The treatment of any higher pension costs resulting from the revised investment strategy of the pension fund, and consequent increase in BAA's annual cash contributions, in the light of ADI's takeover of BAA and proposed leveraged structure.

We have noted that Ferrovial anticipated large salary savings (including savings in pension costs). A number of airlines have also commented on the favourable terms of the pension fund compared with other schemes; the IDS report noted that the BAA accrual rate was significantly more generous than for most other schemes. The CAA in its recommendations to the CC also proposed for Q6 a more holistic approach to considering salary and pension costs but with no changes to approach in Q5.

- 4.147 For the reasons set out in Appendix H, in our view pension costs should be allowed for on the basis of anticipated cash contributions to the pension fund each year. But we also believe it important to cap such cash contributions at an appropriate level, to ensure airport users are not disadvantaged, first by the relative generosity of the scheme; secondly by the change in the investment strategy of the scheme following the increase in BAA's gearing after its acquisition by ADI. For that purpose we have adopted a figure at the top of the range of 16 to 20 per cent for comparable schemes derived from a report we commissioned from the Government Actuary's Department.
- 4.148 In our previous report, we also noted BAA's decision to take a pension fund holiday in Q3, despite the fact that charges for Q3 had been set on the basis of continuing pension contributions. As a result of that pension fund holiday BAA's required cash contributions to the pension fund would be greater to cover costs for which users have already paid through airport charges. To ensure such double-charging of users does not occur, there should in our view be an adjustment to the RAB for the Q3 pension fund contribution holiday. [X], though not necessarily that proposed, and itself previously suggested that the value of the pension fund holiday at some £175 million. It subsequently revised that figure to £151 million, of which £135 million was for Heathrow and Gatwick: hence we recommend that the CAA should make an adjustment to the RAB of £135 million for the Q3 pension fund contribution holiday for the two airports combined. This would, in our view, provide a once-and-for-all solution to this problem.

Utility costs

- 4.149 Among other cost items, the CAA reduced BAA's initial projections for utility costs for the two airports from £630 million over Q5 as a whole to £543 million. This was based on the high range of a forecast in a report the CAA had commissioned from IPA. In its submission to us, BAA subsequently reduced its own forecasts due to a change in market conditions to within £19 million of those IPA Energy & Water Consulting (IPA) estimates. There is currently only a limited difference between the CAA's and BAA's projections for utility costs for the two airports. But these are a moving target given volatile energy prices. We set out our assumptions in Appendix G, which allow in full for BAA's projections, but which should be adjusted by the CAA in line with any further information on market prices that becomes available.

CC's operating expenditure assumption

- 4.150 On the basis of the factors set out above, we have allowed in our financial projections for:
- (a) opex of £3,850 million at Heathrow and £1,186 million at Gatwick (these figures being at 2007/08 prices; the equivalent figures at 2006/07 prices are £3,743 million and £1,153 million); and
 - (b) and a reduction of £135 million from the RAB for Heathrow and Gatwick combined for the Q3 pensions holiday.

Other incomes

- 4.151 Other incomes are discussed in Appendix I. As noted in paragraph 2.7, under the single-till approach, airport charges are set after taking account of non-regulated incomes, namely retail sales, property income, and non-aeronautical revenues (mainly other charges to airlines). The difference in view between BAA and the CAA on other incomes had a relatively limited effect on X: about one percentage point.

BA, however, argued that there was scope for a significant increase in retail revenues, above that assumed by the CAA, which would reduce X from that recommended by the CAA by 2.4 percentage points at Heathrow and 2.2 at Gatwick.

Retail revenues

4.152 BAA's performance in generating commercial revenues was significantly better in Q4 than expected at the time the current charging formula was set. On the future growth of commercial income:

- (a) BAA was reported in the CAA's December 2006 proposals as forecasting a decline in commercial revenues per passenger of 0.8 per cent a year.
- (b) In a report to the CAA, Donaldsons suggested that commercial performance across the spectrum of commercial activities could offer an improvement of about 5 per cent. The CAA adopted commercial revenues per passenger some 4 per cent higher than BAA's projections: retail revenues per passenger declining during Q5 from £4.63 to £4.47 at Heathrow and from £4.26 to £4.08 at Gatwick and total commercial revenues from £5.83 to £5.74 at Heathrow and from £4.98 to £4.78 at Gatwick (at 2007/08 prices).
- (c) A number of airlines believed the CAA projections were too low. BA suggested using information available from its consultants, Pragma Consulting (Pragma), that retail revenues at Heathrow (excluding bureau de change, car parking and property revenues) could increase from £3.30 per passenger to £3.78, rising to £3.86 (at 2006/07 prices), per passenger. It argued that such increases could result from reductions in security processing times, leading to increased airside dwell times, increased retail space per passenger, the improved targeted retail offer in Terminal 5, and increasing long-haul/non-EU share of traffic.
- (d) BAA did not accept Donaldsons' conclusions, and argued that additional expectations of improved commercial revenue were unreasonable unless its incentives were to be improved by a relaxation of the single-till constraints.

4.153 As discussed in Appendix I, BAA provided us with detailed evidence for poorer prospects in 2008/09 at Heathrow when the opening of Terminal 5 and, at for at least half of the year, the continued operation of Terminal 2 is likely to add to the operating costs of its concessions, reducing overall payments to BAA. But over Q5 as a whole we believe there is significantly more scope than BAA have assumed for increases in commercial income. We have noted:

- (a) The understatement by BAA of forecast retail sales income at the last review.
- (b) The increase in retail income per passenger to 2003/04, followed by decline due to EU enlargement, but with relatively static income over the last two years when retail sales are likely to have suffered from the effects of the recent changes in security requirements on check-in and security queues.
- (c) The additional opex being proposed by BAA to resolve the current problem of security queuing, to be financed out of airport charges to airlines, which should itself assist growth in retail income by improving the passenger experience of the airports.
- (d) BAA's assumption of retail income per passenger declining despite expected GDP growth over Q5.

- (e) That projected decline in retail income per passenger at Heathrow also being despite an assumed 10 per cent increase in sales in Terminal 5. This would represent an increase in income per passenger of between 3 and 4 per cent across Heathrow as a whole, offset on BAA's assumptions by a greater decline in other terminals. That increase in income itself looks unambitious given the significant improvement in facilities offered by Terminal 5, a development financed by a significant increase in airport charges, with benefits to retail sales which, under the single till, should be passed on to airlines and passengers.
- (f) The 23 per cent increase in retail floor space as a result of the opening of Terminal 5 and closing of Terminal 2. Although it is unlikely that sales would increase in the same proportion as with retail space, for a 23 per cent increase in retail space to be accompanied by a decline in sales per passenger would bring into question BAA's strategy of increasing retail space to such an extent. We also noted that Donaldsons had been unaware at the time of preparing its report of the extent of the increase in retail space following the opening of Terminal 5, and its subsequent acknowledgement this could have led it to increase its commercial revenue projections.
- (g) BAA's statement that it could not be expected to do better in developing commercial revenues as long as the single till were retained: implying there is scope to do better.

- 4.154 In the shorter term, we acknowledge BAA's arguments that revenues are less likely to increase at Heathrow, and may slightly reduce, following the opening of Terminal 5 and before Terminal 2 is closed, given the effect on retailers costs. (Even this, however, is a cautious assumption, since less congested retail outlets may encourage passengers to increase their use of them.) We have therefore taken the cautious assumption that revenues will be as BAA project for 2008/09, not only for Heathrow but also at Gatwick. But thereafter we believe it reasonable to expect that commercial revenues at Heathrow will benefit on the scale suggested by Pragma as a result of the significant enhancement in passenger experience from BAA's development of Terminal 5, the measures it is planning to take to reduce the current problems of security queuing, and its subsequent programme to bring the rest of Heathrow up to the standards of Terminal 5, developments resulting from the significant levels of capex and opex reflected in our assessment of the level of airport charges.
- 4.155 At Gatwick, there is no increase in floor space equivalent to that at Heathrow, although there will be improvements to the South Terminal departure lounge. Gatwick should also benefit, like Heathrow, from improved security processes reducing the time taken to pass-through security. We have assumed retail revenues per passenger at Gatwick at the average level for Q4.
- 4.156 BAA did point to the risk of losing retail income as a result of loss of retail space for enhanced security facilities or increased seating. This was not taken account of in its own projections. However, if it is able to show the CAA that such developments are definitely to be undertaken, and that the lost space is not more than fully compensated by the additional space now available, it would be open to the CAA to adjust the projected retail incomes accordingly. This would also be the case if it were able to provide the CAA with firmer evidence than it has provided to ourselves, for example on the contracts signed with the new concessionaires in Terminal 5, that the increase in retail income per passenger we have assumed is unobtainable after taking into account the factors referred to above. The CAA should also consider, before making any adjustment to our projected retail incomes, BA's suggestion to which we refer in Appendix I of a full and open review of commercial revenues.

4.157 As discussed in Appendix I, recovery to at least the 2007/08 level of car parking revenues would also seem reasonable at both airports, rather than the continued decline assumed by BAA, given BAA's strong position in the car parking markets at both airports including its exclusive position in short-term car parking (as recently evidenced by increases in car parking charges at Terminal 4) and, at Heathrow, the increase in the number of BAA's car parking spaces and its market share following the opening of Terminal 5.

The position of World Duty Free

4.158 The CAA submission to us also drew attention to concerns of one airline about the arrangements with World Duty Free (WDF), a subsidiary of BAA, and whether they enabled BAA to enhance its return on the single till at each airport. We also considered the implications of the possible sale of WDF.

4.159 In our last report, the CC expressed concern regarding the relationship between BAA and WDF, and argued that BAA should take measures to improve the transparency of the relationship. This would include making clear any changes in contract terms during Q4, to ensure that BAA receives no less favourable terms from WDF than if the concession had been tendered to third parties. BAA told us that the terms and transparency of the relationship had not changed during Q4. Despite the concerns, we accepted that the profits derived by WDF (after deducting concession payments to BAA) should remain outside the single till. We stated that 'to extend the scope of the single till to include the operation of the concessions, rather than merely BAA's rental income from them, would itself be undesirable'. However, we also argued that as well as it being important that BAA should take measures to improve transparency of the contractual arrangements, the concessions be subject to competitive tendering when renewed (some of which would have expired before the end of Q4). We concluded that if there had not been satisfactory progress by the time of the current review, it might be necessary to reconsider our treatment of WDF profits. There has been no subsequent competitive tendering of these activities during Q4; nor any competitive tendering of the concession granted to WDF in Terminal 5.

4.160 There continues therefore to be a case for including the profits of WDF in the single till, and reducing the RAB by the proceeds of any sale of WDF. The sale of WDF does, indeed, give rise to the further concern that BAA would benefit from a higher sale price should the terms of the sale allow any deterioration in WDF's contract terms with BAA; and which, by reducing the future availability of duty free profits to the single till, would result in higher airport charges and be to the detriment of users in the long term. The CAA was concerned primarily to ensure that the sale of WDF did not lead to any deterioration in the terms on which WDF supplied the airports. It believed that it was sufficient for it to be kept fully informed of the terms of the sale, including the future concession payments to BAA and the length of the concession period. This may itself require greater clarity of current and future contract terms and conditions, to ensure no deterioration in terms as a result of any sale.

4.161 It is difficult, given the current level of WDF's profits and in the absence of competitive tendering, to establish whether BAA's current arrangements are detrimental to users. The sale of WDF would also not affect airport charges in Q5, which will be set on the basis of current projections irrespective of the terms of sale. Even beyond Q5, if the projections then available were to suggest the sale has reduced the retail revenues available for BAA, charges could be set on the basis of retail revenues in line with the current revenue stream, or share of gross income or profit, which would be higher than the actual revenues projected at the time. But BAA told us the concession to WDF might be extended by up to 10 or 12 years. In the absence of competitive tendering for such a long period, it would be even more difficult to

establish whether the arrangements with WDF are adverse to users. In our view protection of the current revenue stream would not be sufficient to safeguard user interests: to ensure this, we recommend the selection of a purchaser not only on the basis of the price bid for WDF but also on the basis of bids to increase the current percentage of sales paid as a concession fee to BAA and hence potentially increasing the revenues to be taken into account when setting airport charges in future reviews, although this could require a more direct involvement of the CAA in the sale process. Some form of Constructive Engagement may also be necessary to ensure that the airline/single-till beneficiaries are reasonably represented. Although we acknowledge the limited formal powers available to the CAA, we recommend that the CAA should be kept fully informed of and agree the terms of the sale: we may ourselves wish to consider the implication of the sale of WDF in the market inquiry.

- 4.162 Any extension of BAA's involvement (or that of any associated company) in operating concessions at the designated airports could give rise to similar concerns that profits could thereby be transferred out of the single till to the detriment of airport users.

Non-regulated charges

- 4.163 In setting airport charges, account is also taken of the income from non-regulated aeronautical revenues, that is charges for services and facilities used particularly by airlines and essential to their operation at the airports (such as check-in desks) but which are excluded from the airport charging formulae. The higher (lower) the expected level of such charges to airlines at the time of a quinquennial review, the lower (higher) the airport charges to be levied on them in the next quinquennium. But within any quinquennium, BAA is in a position to set higher charges than assumed, and to benefit from doing so. Hence in previous inquiries, as noted in paragraph 2.6, many airlines have also been concerned about the level of consultation on non-regulated charges, and in particular what they regarded as large, arbitrary and unpredictable increases for such items as security passes. Following our 1991 report, BAA is required to publish information on the relationship between revenues and costs of a number of specified activities, which account for a large part of non-regulated charges.
- 4.164 The CAA's position in its Recommendation to us was that the principles for non-regulated charges which had emerged from the Constructive Engagement discussions at Heathrow and Gatwick would provide adequate protection to users, in particular of transparent cost-based recovery of costs and with regular consultation with airlines. On that basis it adopted BAA's projections for non-regulated charges, subject to adjustment for utilities charges. BA said that the CAA had told BAA and the airlines that they should also agree forecasts of non-regulated charges in Constructive Engagement, but agreement had still not been reached on such forecasts for Heathrow, and no forecasts had been shared with airlines at Gatwick.
- 4.165 Although there are some remaining areas of disagreement between BAA and the airline at each airport, including the concern that the principle of transparent cost-based charges may provide insufficient incentive to cost efficiency, the establishment of forecasts based on recovery of costs on a transparent basis agreed with the airlines and with annual consultation on changes in charges and explanation for any increases in them should go a long way to ensuring such charges are reasonable. In the event of inadequate consultation or apparently unreasonable increases in charges, it remains open for the airlines to complain to the CAA under section 41 of the Act; but the CAA should also not preclude any adjustment of airport charges in the next review for any increase in non-regulated charges in Q5 that has not been adequately justified.

4.166 We note that BAA's auditors currently report to BAA and the CAA on whether the information presented in the transparency statements has been properly extracted from the books and records of the airports and is arithmetically accurate; and whether the statements have been compiled in accordance with the process established by the airports' directors for preparing the statements. We also note, however, that the basis of allocation of individual cost items is neither transparent nor agreed in advance with the airlines or other users. We recommend BAA, the CAA and the AOC of each airport to jointly appoint a firm of accountants to consider the appropriate basis for allocating costs with an annual audit to ensure charges are consistent with the appropriate basis of allocation.

Assumed level of other incomes in financial projections

4.167 We have therefore assumed (at 2007/08 prices):

- (a) retail and property revenues per passenger increasing at Heathrow from £5.50 in 2008/09 to £6.34 in 2012/13; and at Gatwick from £4.87 to £5.13; and
- (b) BAA's projections for non-regulated charges of £852 million in Q5 at Heathrow and £178 million at Gatwick.

Traffic forecasts

4.168 In order to estimate the passenger yield required for the designated airports to cover their costs, it is necessary to forecast the number of passengers who will use Heathrow and Gatwick airports over Q5. Traffic forecasts are also an important element in the forecasting of capex, since it is necessary to know how many passengers are likely to use an airport in order to decide what facilities are required. As part of the process of Constructive Engagement, therefore, BAA and the airlines have attempted to forecast traffic over Q5 and beyond. At Gatwick, the parties to Constructive Engagement reached a degree of consensus as to the likely level of passenger traffic in Q5. At Heathrow, however, there was a material difference between BAA and the airlines who led on the traffic forecasts workstream, mainly BA and Virgin, which was unresolved when the Interim Report was published on 20 July 2007. No further discussions between BAA and the airlines have taken place since then. We received additional detailed information on Heathrow fleet mix and load factor assumptions as this report was being prepared. The airlines have not had the opportunity to comment on that information. We have based our forecasts on BAA's assumptions from spring this year, and the airlines' comments thereon. We recommend that the CAA re-examine the provisional forecasts contained in this section in the light of the revised data we received.

4.169 Table 12 shows the latest traffic forecasts of the airlines and BAA at Heathrow and Gatwick, as notified to the CC on 20 July 2007. The forecasts in the Table assume the implementation of the EU-US Open Skies Agreement.

TABLE 12 Q5 traffic forecasts at Heathrow and Gatwick, summer 2007

	<i>million passengers</i>					
	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Heathrow—BAA forecasts	70.6	72.5	74.0	75.3	77.2	369.6
Heathrow—airlines' forecasts	72.6	74.5	75.9	77.3	78.8	379.1
Gatwick—BAA forecasts	36.2	36.6	36.8	37.3	37.7	184.6
Gatwick—airlines' forecasts	36.2	36.6	37.0	37.5	38.2	185.5

Source: CC study.

The methodology which BAA uses to forecast traffic, and BAA's performance in forecasting traffic over Q3 and Q4 at its airports in the London area are outlined in Appendix J.

Heathrow traffic forecasts

4.170 From discussions with the airlines and BAA, we understood that the difference at Heathrow of around 2 million passengers a year, falling to 1.6 million in 2012/13, was due to airline assumptions, compared with BAA's, of:

(a) *Higher long-haul load factors*: The airlines produced forecasts of long-haul load factors around 1.5 percentage points higher than BAA's throughout Q5. As a one percentage point change in long-haul load factors increases passenger forecasts by around 0.5 million, this accounted for around 0.7–0.8 million passengers a year of the difference.

(b) *A higher proportion of long-haul flights*: The airlines were projecting much faster growth in the proportion of long-haul flights as a percentage of total flights between 2006 and 2008 than BAA, followed by approximately the same level of growth for the rest of Q5. The difference between BAA and the airlines accounted for around 0.7 million passengers a year throughout Q5.

4.171 We understand that BAA has not seen these forecasts by the airlines.

4.172 In addition, the airlines argued that BAA was assuming that few Boeing 777-300s would be in use, compared with Boeing 777-200s, while they produced data, compiled from public sources, which showed that three times as many Boeing 777-300s would be delivered during Q5 as Boeing 777-200s. Since the former model of the aircraft has a capacity of up to 350 passengers, while the latter model usually seats around 250, and since the aircraft is one of the most frequently used at Heathrow, this made a substantial difference to the forecasts. However, we have reviewed BAA's fleet mix assumptions, and are satisfied that those assumptions reflect the number of both models of Boeing 777s in use and currently on order throughout Q5. BAA's spring forecasts, on which the airlines' comments were based, forecast a rapid increase in the number of Boeing 777-300 air transport movements (ATMs), from less than 4,000 in 2008/09 to around 40,000 by 2015/16. The number of Boeing 777-200 ATMs, on the other hand, is projected to fall slightly, from 50,200 to 48,200 over the same period. This seems consistent with the number of the two models of Boeing 777s due to be delivered over Q5. We recommend the CAA should re-examine this assumption.

4.173 Traffic levels over the next few years are clearly uncertain. BAA has repeatedly argued to us that it considers the level of growth which the airlines are assuming between 2007/08 and 2008/09 to be unrealistic. While BAA has conceded that there will be some increase in passenger traffic caused by the opening of Terminal 5 and

the improved passenger experience there, it argues that it had built some such effect into its forecasts. It considers that the reputational effect caused by the poor operational performance of Heathrow and Gatwick over the last 18 months will continue to depress passenger numbers, and that airlines are targeting yield per passenger, rather than total passenger numbers. We consider that BAA's arguments in this area have merit, since the airlines' 2008/09 number is around 5 million passengers higher than current projections for 2007/08. This increase is of greater magnitude than the decrease following the September 11 2001 terrorist attacks and the worldwide recession of that year. Such an increase must take place without a significant increase in the number of flights, since Heathrow is already close to its planning limit of 480,000 flights a year. While growth of this magnitude is possible, we consider that it would be unwise to base forecasts on such an increase, and accordingly we have adopted BAA's forecast for the number of passengers in 2008/09.

4.174 For the remaining four years of Q5, for Heathrow, the CC has made provisional forecasts based on the following assumptions:

(a) *Long-haul load factors:* As BAA has noted in a response to us, forecasting load factors several years ahead requires the exercise of a significant amount of judgement. BAA has argued that, generally speaking, airlines are not currently maximizing the number of seats filled, but instead are targeting higher-yielding premium traffic. This appears inconsistent with the fact that several large airlines, including BA and Virgin, are currently conducting 'World Offers', in which a considerable number of seats are offered at low prices in order to maximize passenger numbers. It seems, therefore, that there is scope for optimism in this area. While these offers are short-term, the airlines to which we have spoken have confirmed that they are actively seeking to boost load factors, preferring not to fly with empty seats, and that this strategy is likely to persist. However, many airlines are not represented in Constructive Engagement, and may take a different approach to managing their load factors. Accordingly, we have assumed long-haul load factors mid-way between the airlines' position and BAA's. This has the effect of increasing BAA's traffic forecasts by around 0.4 million a year.

(b) *Proportion of long-haul flights:* We have asked airlines about their plans to increase the proportion of long-haul flights at the expense of short-haul flights. Responses are commercially confidential, but the information received has led us to consider that the airlines' position in this area is more likely than BAA's. This has the effect of increasing BAA's traffic forecasts by around 0.7 million a year.

4.175 We have made no adjustment to BAA's forecasts for the average size of aircraft, and we are retaining BAA's assumptions on average seats per for both short haul and long-haul services.

4.176 Table 13 shows the resulting provisional traffic forecasts for Heathrow for Q5.

TABLE 13 Provisional Q5 traffic forecasts for Heathrow

	2008/09	2009/10	2010/11	2011/12	2012/13	Total Q5
BAA projections	70.6	72.5	74.0	75.3	77.2	369.6
Fleet mix assumptions	-	-	-	-	-	-
Long-haul load factor assumptions	-	0.4	0.4	0.4	0.4	1.6
Proportion of long-haul ATMs	-	0.7	0.7	0.7	0.7	2.8
Provisional adjusted forecasts	70.6	73.6	75.1	76.4	78.3	374.0
IATA forecasts (for comparison)	72.6	74.5	75.9	77.3	78.8	379.1

Source: BAA, IATA, CC estimates.

4.177 BAA has updated its forecasts frequently over the past two years (see Annex 1 to Appendix J), given additional detailed information and estimates of component variables. As mentioned above, we were in receipt of new information on fleet mix and load factor assumptions as this report was being finalized, on which the airlines have not had the opportunity to comment. We consider, therefore, that it is likely to be appropriate for the CAA to look again at the above provisional traffic forecasts in the light of this new information and any other relevant information which may emerge, and to take into account views from the airlines in this area.

Gatwick traffic forecasts

4.178 At Gatwick, slots are due to be freed up as airlines move their American services to Heathrow, following the implementation of the Open Skies agreement at the start of Q5. We understand that the difference between BAA and the airlines reflects differing views as to the speed at which the slots at Gatwick will be filled by other traffic (the so-called 'backfill' effect). BAA has assumed that many of the slots vacated by these services will be replaced with other services, as there is excess demand for slots at Gatwick, but that the replacement will consist of a range of service types including services displaced from Heathrow by new services to the USA, additional Gatwick-based and other 'no-frills' services. The airlines, however, have based their forecasts on industry discussions and publicly available information as to what will happen in April 2008 and subsequently. Deciding between these approaches is difficult given the unprecedented scope of the Open Skies agreement, especially since it involves courses of action which will occur throughout Q5, but, as the difference between the parties is relatively small and as the airlines have had difficulty in providing written evidence to support their approach, it appears prudent to adopt the lower BAA forecasts.

4.179 We understand that BAA views these forecasts as aggressive, given lower than expected traffic at Gatwick in the past year, and it may therefore be appropriate for the CAA to consider traffic forecasts at Gatwick as well as at Heathrow before it finalizes its proposals.

TABLE 14 Provisional Q5 traffic forecasts for Gatwick

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Gatwick—BAA/CC forecasts	36.2	36.6	36.8	37.3	37.7	184.6

Source: BAA.

5. The recommended maximum level of airport charges

5.1 The following are the main assumptions in our financial modelling for each of the 'building blocks' set out in Figure 1 relevant to our recommendation of the appropriate maximum level of airport charges in Q5; value figures are at 2007/08 prices:

(a) capex of £3,535 million at Heathrow and the bottom end of the range of £712–£796 million at Gatwick (the range depending on the scope for savings). Our assumed capex programme is, however, subject to both the Currie & Brown further report to the CAA and further Constructive Engagement (paragraph 4.27);

(b) construction price inflation of 0.75 per cent a year above RPI (paragraph 4.29);

- (c) a reduction in the RAB of £42 million for the sale value of the Terminal 5 hotel site (paragraph 4.57); and a reduction of £135 million from the RAB for Heathrow and Gatwick combined for the Q3 pensions holiday (paragraph 4.148);
- (d) a real, pre-tax cost of capital of 6.2 per cent at Heathrow and 6.5 per cent at Gatwick (paragraph 4.109);
- (e) opex of £3,850 million at Heathrow and £1,186 million at Gatwick (paragraph 4.150), but a number of aspects of which will need to be considered further by the CAA;
- (f) retail and property revenues per passenger increasing at Heathrow from £5.50 in 2008/09 to £6.34 in 2012/13; and at Gatwick from £4.87 to £5.13; and BAA's projections for non-regulated charges of £852 million in Q5 at Heathrow and £178 million at Gatwick (paragraph 4.167); and
- (g) passenger forecasts as set out in Tables 13 and 14 of 374 million for Q5 as a whole at Heathrow and 185 million at Gatwick.

Projections for Q5

CAA projections

5.2 In its March 2007 reference to the CC, the CAA submitted financial projections for Q5 for Heathrow and Gatwick as summarized in Tables 15 and 16. The projections were based on a cost of capital of 6.2 per cent at Heathrow and 6.7 per cent at Gatwick. The adjusted operating profit is before the profiling adjustment: ie the lower charges in Q5 to compensate for the higher charges in Q4 that resulted from the profiling adjustment referred to in paragraph 5.216(d). (Since the CAA projections were at 2006/07 prices, we have presented the projections in this section at 2006/07 price levels.)

TABLE 15 CAA's projections for Heathrow's revenue and costs (£ million except where otherwise indicated, 2006/07 prices)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Passenger numbers (m)	71.7	73.2	74.8	76.4	78.5	374.6
Airport charges	712	762	842	907	993	4,216
Commercial and other revenues	704	725	730	734	765	3,658
Q4/Q5 profiling adjustment	195	144	101	76	-13	504
Total revenue	1,612	1,630	1,673	1,717	1,745	8,377
Opex	698	684	686	685	683	3,436
Depreciation	391	388	399	427	462	2,067
Adjusted operating profit	523	558	588	605	600	2,874
Average RAB	8,703	9,273	9,791	10,053	9,979	
Operating profit as % of regulatory value excluding profiling adjustments	6.0	6.0	6.0	6.0	6.0	

Source: Adapted from Table 13-1 of the CAA's recommendations to the CC for Heathrow and Gatwick Airports, March 2007.

TABLE 16 CAA's projections for Gatwick's revenue and costs (£ million except where otherwise indicated, 2006/07 prices)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Passenger numbers (m)	34.6	35.1	35.5	36.0	36.5	177.7
Airport charges	181	185	185	182	182	915
Commercial and other revenues	204	204	204	206	205	1,023
Total revenue	385	389	389	387	388	1,938
Opex	215	214	213	212	211	1,065
Depreciation	73	77	78	78	78	383
Adjusted operating profit	97	98	98	98	99	490
Average RAB	1,491	1,512	1,519	1,514	1,528	
Operating profit as % of opening regulatory value excluding profiling adjustments	6.5	6.5	6.5	6.5	6.5	

Source: Adapted from Table 13-2 of the CAA's recommendations to the Competition Commission for Heathrow and Gatwick Airports, March 2007.

BAA projections

5.3 Following the interim report of the Constructive Engagement process BAA submitted to the CAA its financial projections for Heathrow and Gatwick for Q5, which are summarized in Tables 17 and 18. BAA based its projections on a rate of return of 7.75 per cent.

TABLE 17 BAA's projections for Heathrow's revenue and costs

£ million except where otherwise indicated, 2006/07 prices

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Passenger numbers (m)	70.6	72.8	74.2	75.3	77.2	370.1
Airport charges	885	1,021	1,165	1,322	1,516	5,909
Commercial and other revenues	686	701	710	706	714	3,517
Q4/Q5 profiling adjustment	199	147	103	77	-13	513
Price smoothing adjustment	125	74	27	-75	-152	0
Total revenue	1,895	1,943	2,005	2,030	2,065	9,938
Opex	823	806	797	785	798	4,009
Depreciation	392	399	418	425	449	2,084
Adjusted operating profit	681	738	790	821	818	3,847
Average RAB	9,129	9,893	10,587	10,998	10,957	
Operating profit as % of regulatory value excluding profiling adjustments	7.5	7.5	7.5	7.5	7.5	

Source: Adapted from BAA submission, May 2007.

TABLE 18 BAA's projections for Gatwick's revenue and costs (£ million except where otherwise indicated, 2006/07 prices)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Passenger numbers (m)	36.2	36.6	36.8	37.3	37.7	184.5
Airport charges	212	235	258	287	317	1,308
Commercial and other revenues	208	206	208	210	212	1,044
Total revenue	420	441	466	486	529	2,352
Opex	252	255	258	262	265	1,292
Depreciation	73	73	76	79	92	391
Adjusted operating profit	115	124	137	146	148	671
Average RAB	1,547	1,668	1,834	1,954	1,985	
Operating profit as % of regulatory value excluding profiling adjustments	7.5	7.5	7.5	7.5	7.5	

Source: Adapted from BAA submission, May 2007.

5.4 Both BAA and the CAA based their estimates of the revenue required during Q5 on BAA's Group Strategic Model (GSM), developed by IBM Business Consulting Services. This model was adapted to calculate outputs using an extension designed by the CAA. We have used this model to derive our own Q5 projections, and have added a facility to estimate the hypothetical financial ratios implied by the revenue and cost estimates.

CC projections

5.5 While the building blocks set out in Figure 1 and on which we have set out our assumptions in paragraph 5.1, show how the total revenue requirement could be derived so as to earn the appropriate cost of capital over Q5, there are many different profiles of charges within any individual quinquennium that would be consistent with earning any particular rate of return.

5.6 On the profiling of charges within Q5, the CAA proposals allowed for an opening yield adjustment (at 2006/07 prices) of 41p per passenger at Heathrow and 28p at Gatwick to reflect the revised classification of some services within the regulatory framework, with the price cap then profiled to allow a smooth increase in charges through the quinquennium. BAA's proposals for an opening yield adjustment of £2.02 at Heathrow and £0.56 at Gatwick also allow for additional security and Terminal 5 costs, in order to avoid the need, on its assumptions, for a continuous price increase (of RPI+15) at Heathrow in Q5 with a subsequent reduction of prices in Q6.

5.7 In our view, it is appropriate to allow an opening yield adjustment for changes in the scope of the airport charges and for additional security costs; (we have also added a further small increase to the opening yield adjustment to allow a more rounded value of X). The resulting opening yield adjustments we have adopted are of £0.75 at Heathrow and £0.57 at Gatwick, resulting in an opening yield of £9.91 at Heathrow and £5.34 at Gatwick (at 2006/07 prices).¹⁹ The profiling of charges within a quinquennium is largely arbitrary, and is an issue on which the CAA may wish to consult the airlines given the concerns we set out in paragraphs 5.25 et seq. We have, however, provided for somewhat higher charges at the beginning of Q5 and lower charges at the end of Q5 at both airports to allow a constant value of X.

5.8 As noted in paragraph 2.16(d), the profiling of charges between quinquennia was also an issue in setting charges for Q4. Charges in Q4 included some revenue brought forward from Q5 to avoid the need for a large step increase in charges in Q5, with an offsetting adjustment in Q5. Airlines have argued against any further revenue advancement from Q6 into Q5. We saw nothing to suggest any reason for any further revenue advancement, but it also remains highly doubtful, however, whether any projections for X for Q6 are likely to be useful at this stage, given the uncertainties about capex programmes and in particular Runway 3 and Terminal 6 at Heathrow, or a second runway at Gatwick in Q7 if this proves impossible. The current projections for a negative X for Q6 for both airports will be overturned by any projects of this size.

5.9 Our high-level financial projections for the financial performances of Heathrow and Gatwick airports given its revenue, traffic and cost assumptions, are contained in Tables 19 and 20.²⁰ The 'adjusted operating profit' is before the profiling adjustment, to which we referred in paragraphs 2.16(d) and 5.2. The tables include, however, a price smoothing adjustment—the effect on revenues within the quinquennium of adopting the constant value of X of RPI+7.5 at Heathrow, RPI–0.5 at Gatwick.

¹⁹The opening yields would be £10.19 and £5.50 at Heathrow and Gatwick respectively at 2007/08 prices.

²⁰The reason the return on the RAB appear slightly less than the cost of capital are explained in Appendix D.

TABLE 19 The CC's projections for Heathrow's* revenue and costs (£ million except where otherwise indicated, 2006/07 prices)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Opening RAB	8,616	9,280	9,967	10,548	10,765	
Capex	822	920	879	592	314	3,527
Depreciation	-392	-399	-417	-423	-446	-2,078
Q4/Q5 profiling adjustment	199	147	103	77	-13	513
Price smoothing adjustment	35	19	16	(29)	(41)	-0
Closing RAB	<u>9,280</u>	<u>9,967</u>	<u>10,548</u>	<u>10,765</u>	<u>10,579</u>	
Operating costs	742	744	748	751	758	3,743
Depreciation	392	399	417	423	446	2,078
Q4/Q5 profiling adjustment	-199	-147	-103	-77	13	-513
Price smoothing adjustment	-35	-19	-16	29	41	0
Cost of Capital	538	579	617	641	642	3,016
Total revenue	<u>1,438</u>	<u>1,557</u>	<u>1,662</u>	<u>1,767</u>	<u>1,899</u>	<u>8,324</u>
Commercial revenues	-378	-408	-431	-455	-483	-2,154
Non-regulated revenues	-166	-163	-165	-165	-168	-828
Other revenues	<u>-142</u>	<u>-145</u>	<u>-144</u>	<u>-140</u>	<u>-141</u>	<u>-713</u>
Net revenue	<u>752</u>	<u>841</u>	<u>922</u>	<u>1,007</u>	<u>1,108</u>	<u>4,630</u>
Passenger numbers (m)	70.6	73.6	75.1	76.4	78.3	374.0
Profiled yield per passenger	10.7	11.4	12.3	13.2	14.1	
Operating profit	304	413	498	593	695	2,503
Operating profit (excluding Q4/5 profiling adjustments)	503	560	601	670	683	3,016
Average RAB	8,948.3	9,623.6	10,257.4	10,656.4	10,672.1	
Return on RAB (%)	3.4	4.3	4.9	5.6	6.5	
Return on RAB (excluding Q4/5 profiling adjustments) (%)	5.6	5.8	5.9	6.3	6.4	

Source: CC.

*Includes Heathrow Express.

TABLE 20 The CC's projections for Gatwick's revenue and costs (£ million except where otherwise indicated, 2006/07 prices)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Opening RAB	1,462	1,522	1,630	1,743	1,799	
Capex	137	187	188	131	144	788
Depreciation	-71	-73	-75	-79	-85	-384
Price smoothing adjustment	-6	-6	-0	4	8	0
Closing RAB	<u>1,522</u>	<u>1,630</u>	<u>1,743</u>	<u>1,799</u>	<u>1,866</u>	
Operating costs	231	230	230	232	232	1,153
Depreciation	71	73	75	79	85	384
Price smoothing adjustment	6	6	0	-4	-8	0
Cost of capital	94	99	106	111	115	526
Total revenue	<u>402</u>	<u>407</u>	<u>412</u>	<u>418</u>	<u>424</u>	<u>2,063</u>
Commercial revenues	-171	-175	-179	-183	-188	-897
Non-regulated revenues	-34	-34	-34	-35	-35	-173
Other revenues	<u>-4</u>	<u>-4</u>	<u>-4</u>	<u>-4</u>	<u>-4</u>	<u>-19</u>
Net revenue	<u>193</u>	<u>194</u>	<u>194</u>	<u>196</u>	<u>197</u>	<u>974</u>
Passenger numbers (m)	36.2	36.6	36.8	37.3	37.7	184.5
Profiled yield per passenger	5.3	5.3	5.3	5.3	5.2	
Operating profit	100	105	106	107	107	526
Average RAB	1,491.8	1,576.0	1,686.6	1,770.9	1,832.4	
Return on RAB (%)	6.7	6.7	6.3	6.1	5.8	

Source: CC.

5.10 The X we have derived is at the top end of the range put forward by the CAA for Heathrow, but mainly due to the higher capex programme resulting from Constructive Engagement. The X for Gatwick is only slightly below the mid-point of the CAA range. Before reaching our final view on airport charges, we have also considered whether there are implications of these projections for the financeability of BAA.

Financeability

5.11 The statutory criteria of the Airports Act, which govern how the CAA must perform its functions relating to the economic regulation of the airports, are set out in paragraph 2.8. The CAA has no express statutory obligation to ensure that regulated airports, including BAA, are adequately financed. The CAA is, however, required to promote the efficient, economic and profitable operation of such airports, and also to encourage investment in new facilities at airports in a timely fashion. In this context, we consider it appropriate for us to establish whether our proposals would enable Heathrow and Gatwick to finance their extensive CIPs in Q5 on reasonable terms in the banking and capital markets through some combination of debt and equity. The sectoral regulators have termed this 'financeability'.

Maintaining solid investment grade credit

5.12 A key assumption in determining the appropriate level of gearing in our estimation of the cost of capital in paragraph 4.63 et seq is that both airports should be able to obtain and maintain a solid (sometimes known as 'comfortable') investment grade rating.

5.13 We gathered evidence directly from three ratings agencies; Fitch Ratings Ltd, Moody's Corporation and S&P, as well from BAA which had also had recent dealings with these rating agencies.

5.14 Our interpretation of a solid investment-grade rating is BBB+ (using S&P's and Fitch's terminology) and Baa1 (using Moody's terminology) which is a couple of 'notches' above the bottom of investment grade of BBB- or Baa3. Our aim is thus for the two airports, at our assumed gearing level of 60 per cent, to be in a position to absorb unanticipated downside risk and still retain an investment grade credit rating range.

5.15 In determining a credit rating an agency typically considers the business, financial and other risks faced by a company as well as other factors such as its corporate governance, including the quality of the board and management and hence the company's ability to manage its risks.

5.16 In forming a view on the business risk of an airport, an agency will consider, among other things:

(a) the competitive position of the airport compared with airports owned by competitors, which in turn may include:

(i) location (catchment area, local transport links); and

(ii) customer airlines and the passenger mix, (hub airlines, alliances, destinations of those airlines).

(b) the regulatory regime, and in particular the rigour and predictability of the regime;

(c) the diversity of the airports owned or operated by the company; and

(d) charges (landing, passenger and security charges).

5.17 In forming a view on the financial risk of a business it is rating, an agency would consider matters such as:

- (a) the historical and forecast financial performance (including ratio analysis (see paragraph 5.20)), including:
- (i) cash flow and profitability;
 - (ii) revenue diversity and stability;
 - (iii) liquidity and financial flexibility;
 - (iv) capital structure of the company (including gearing); and
 - (v) covenants and security including securitization; and
- (b) financial policy and strategy of management (including M&A activity, dividend policy).
- 5.18 The business risk of an airport will not be affected by our review. Nor do we consider that it changes the regulatory risk of either Heathrow or Gatwick. However, we recognize that our recommendations to the CAA on the building blocks of price determination and the allowable revenues will affect forecast revenues and profits and therefore could affect the financial risk of the company.
- 5.19 We have therefore considered whether the forecast performance of the two airports is consistent with a solid investment grade rating for each of them. Our cost of capital recommendations are based on assumed gearing of 60 per cent and we are therefore assessing whether the ratios for each of the two 'notional' airports are consistent with a solid investment grade rating.
- 5.20 All the rating agencies told us that ratio analysis was only one of its analytical tools and had to be viewed as part of its overall analytical approach and not in isolation; thus two companies with identical ratios might have different ratings due to other factors affecting business risk. We cannot put ourselves in the position of the rating agencies, nor can we ascertain what their ultimate decisions might be; indeed it is possible that these may be determined by factors beyond those relating to our nominal companies at Heathrow and Gatwick with assumed gearing of 60 per cent which is the sole concern of this inquiry. We also recognize that the rating agencies place different emphasis on the various ratios. Furthermore, some of the agencies also differ in their benchmarks (eg the value the ratio needs to be for a certain credit rating). Nevertheless, we thought we should consider whether the ratios resulting from our recommendations are consistent with a solid investment grade rating. We considered six ratios used by the various agencies:²¹
- (a) interest cover;²²
 - (b) funds from operations (FFO²³) interest cover;²⁴
 - (c) post-maintenance interest cover ratio (PMICR);²⁵
 - (d) adjusted interest cover (adjusted ICR);²⁶

²¹These ratios and some of the terms used in them do not have agreed definitions. We have set out below how we have defined these ratios.

²²ICR = (EBITDA – tax paid – 2 per cent of Total RAB)/Interest Paid.

²³FFO= Net income from continuing operations adding back depreciation, amortization, deferred income taxes and other non-cash items, less any changes to operating components of working capital.

²⁴FFO/Interest Expense = FFO (as above) + Gross Interest Paid on Debt/Gross Interest Expense on Debt.

²⁵PMICR = (EBITDA – corporation tax paid – Regulatory Depreciation)/Interest Paid.

(e) FFO to debt;²⁷ and

(g) regulatory asset ratio (RAR²⁸ or gearing) (debt divided by RAB).

5.21 We created a separate section in BAA's financial model to provide illustrative calculations of the above financial ratios during Q5: these are set out in nominal terms²⁹ as this is the basis used by the rating agencies which therefore enabled us to compare the forecasts for Heathrow and Gatwick with those required by the agencies in making their determinations. These ratios were calculated after the adjustments we made to BAA's base financial projections (see paragraph 5.1) and the subsequent cash-flow data derived within the model. We also made the following gearing and debt assumptions, which were consistent with our cost of capital calculations:

(a) a constant gearing level of 60 per cent, with the level of dividends being the balancing item used to keep gearing at this level;

(b) a nominal cost of debt of 6.3 per cent;

(c) index-linked debt making up 25 per cent of the total debt balance ([~~£~~]); and

(d) a nominal cost of index-linked debt of 3.4 per cent.

5.22 In calculating these ratios, we also made use of BAA's projections on RPI movements and changes in working capital. In calculating the amount of tax payable in each year, we took a straightforward approach which involved replacing regulatory depreciation with estimates of capital allowances provided by BAA and assuming half the resulting tax payable would be paid in the respective current year and the rest in the following year. BAA has emphasized in its submissions that there is considerable uncertainty regarding its likely tax charge in Q5. It is possible that better estimates may be available for the CAA to take into account before it reaches its final determination. All the ratios that we have considered except the RAR ratio and the adjusted ICR are affected by the Q4/Q5 profiling adjustment which has a negative or downward impact on these ratios and which we discuss below.

5.23 The results of our calculations across the whole of Q5 are shown below,³⁰ together with the impact of the Q4/Q5 profiling (see below) on these ratios.

²⁶One of the agencies told us that it calculated an adjusted ICR which was similar to the PMICR but adjusted for the profiling adjustment. Adjusted ICR is FFO + interest expense – regulatory depreciation + profiling adjustment divided by interest expense.


²⁷FFO/Net Debt, where FFO is as defined above and Net Debt = Debt less Cash less Authorised Investments less adjustments for operating leases and pensions.

²⁸RAR = Debt less Cash and Authorised Investments/Total RAB.

²⁹In contrast, the rest of the model when used for the price control was specified in real terms.

³⁰The ratios for each year in Q5 are shown in Table 9 in Appendix K.

TABLE 21 Key financial ratios; benchmarks and our calculations

Key financial ratios	Moody's (Baa2)	BAA* (BBB- to BBB+)	Fitch (BBB+)	With profiling	Without profiling†
ICR (EBITDA – tax paid – 2% RAB) (x)		[]		2.0	2.3
FFO interest coverage (x)				2.4	2.6
PMICR (x)			1.5–1.6	1.4	1.7
Adjusted ICR (x)	1.4–1.6			1.7	
FFO to net debt (%)				8.7	10.1
RAR (%) – (net debt/RAB)	68–75			60	60

Source: CC analysis.

*These targets are as provided to us by BAA after its discussions with the rating agencies.

†This column shows the impact on these ratios of excluding the Q4/Q5 profiling adjustment when calculating the revenue requirement and hence assumed revenue. We are not suggesting that the profiling adjustment should be excluded when calculating these ratios, as it directly impacts on the revenue and the assumed cash flow.

5.24 As noted above, the respective agencies' decisions will take into account more than just the analysis of ratios and we are not privy to those other factors. We have therefore had to restrict our own analysis to a consideration of those ratios. We conclude from our modelling that the ratios resulting from our price control recommendations and an assumed 60 per cent gearing would be consistent with an investment grade taking Q5 as a whole, although the ratios would not be met in each year of Q5.³¹ The PMICR may be consistent with an investment grade of BBB rather than the more solid BBB+/Baa1. We recognize therefore that our ratio analysis shows that while BBB+/Baa1 could be achievable on the basis of all other ratios, it would not do so on the basis of the PMICR.

Q4/Q5 profiling

5.25 Heathrow's allowed revenues and hence projected cash flows in Q5 are affected by the profiling of revenue between Q4 and Q5.

5.26 In the CC's 2002 report, recognizing that it would be undesirable to have a large step increase in prices when Terminal 5 came into operation, we stated (paragraph 2.374) 'We believe it is appropriate therefore to allow a return equivalent to the cost of capital over Q4 and Q5 together at Heathrow, by smoothing or advancing revenues between quinquennia and we make our recommendations for Q4 on that basis'. We argued (paragraph 2.383) that such an advancement was necessary as 'to do otherwise would require a significant increase in charges at the beginning of Q5, discourage BAA's investment programme and fail to promote the reasonable interests of users given the value of increased capacity at Heathrow'. The NPV at the start of Q4 of this revenue advancement was £300.4 million in 2000/01 prices (Table 10.10 of the CC's 2002 report). This represents the excess of projected revenue in Q4 and equally the shortfall in Q5 compared with the level based on earning exactly the cost of capital on its RAB in both quinquennia (but excluding the revenue shortfall in Q4 due to recovery of revenue advanced in Q3 and clawback, due to delay to Terminal 5, of capex underspend in Q3).

5.27 The CAA accepted the CC's recommendation regarding the profiling of revenue between Q3 and Q4, and implemented it through a series of profiling adjustments to revenue in Q4³² and Q5.³³ The cumulative value of the profiling adjustments at the

³¹The ratings agencies recognize that the effect of profiling is such that the interest cover ratios and the ratio of funds from operations to net debt will improve over the years in Q5. We have assumed that the ratings agencies would be content if the ratios were met on average over Q5. This issue may arise in practice in the context of BAA's proposed re-financing.

³²In its implementation of the Q4 price controls.

³³In its recommendations to us.

end of Q4 amounts to £528.1 million in 2007/08 prices—this represents the £300.4 million compounded forward through Q4 adjusted for inflation. The RAB can be defined both before and after cumulative profiling adjustments. The value of RAB before cumulative profiling adjustments is known as the base RAB and the value after cumulative profiling adjustments is known as the profiled RAB. By the end of Q5, the base RAB and the profiled RAB are the same.

- 5.28 Consistent with our recommendations in 2002 and the CAA's subsequent decision, our proposed revenue requirement for Heathrow for Q5 is made up of opex, depreciation and our allowed return on the profiled RAB³⁴ less this profiling adjustment. Heathrow's profiled RAB increases through Q5 by more than its expenditure on net new investment (capex less depreciation) and this represents a gain to the shareholders. This results in the total return to the owners of Heathrow (including this gain) being equal to Heathrow's cost of capital.
- 5.29 The effect of the profiling adjustment in Q5 is to reduce Heathrow's revenues and hence cash flows. This then adversely affects some financial ratios and in particular reduces interest cover. It may also affect accounting ratios depending on how precisely they are computed. This is as foreseen in our 2002 report.
- 5.30 The rating agencies are aware of the profiling adjustment and of its impact in Q5 in total and in the early years of the quinquennium in particular.
- 5.31 BAA, whilst charging up to the cap,³⁵ earned less than its allowed rate of return in Q4 at Heathrow.³⁶ This, however, does not alter the fact that the price control was set by advancing revenue from Q5 to Q4 and, in the absence of this profiling adjustment, our proposed charges for Heathrow at Q4 would have been lower. We do not consider it reasonable to require customers to pay twice, for example, by simply reducing the profiling adjustment in Q5 and increasing airport charges. We consider that the fact that allowed profits in Q5 would be lower due to the profiling adjustments was clearly signalled in our 2002 recommendations and the CAA report (paragraph 4.23). The CAA's February 2003 decision implemented the Q4/Q5 profiling, increasing airport charges in Q4, against the wishes of many of the airlines (see paragraph 4.12 at seq of the CAA decision). Had it not done so, it would have set the price caps on the maximum revenue per passenger (yield) for Heathrow on the basis of a 15 per cent lower revenue requirement than the £1,991 million NPV that it actually used.
- 5.32 It would be possible to increase the returns in Q5 and hence improve financeability in various ways. We set out some options and our views on them.
- (a) By raising the allowed cost of capital. It would be possible to increase our proposed WACC in the form of a higher equity return or a higher debt return. We do not favour this as we consider that our chosen cost of capital reflects the true cost of raising funds allowing for all the systematic risk faced by the airports and to increase the cost of capital and hence the allowed return further would result in an excessive return being earned on new investment.
- (b) By adjusting the unwinding of this revenue advancement (for example by deferring some or all of it into Q6) or by including an additional financeability adjustment in the calculations for Heathrow. We considered recommending that the impact of the profiling could be postponed whilst retaining the principle of NPV neutrality. Possible methods would include making deductions from the RAB or

³⁴Calculated on the average profiled RAB.

³⁵See Paragraph A.16 in CAA's December 2006—initial proposals document.

³⁶See Table 1 in Appendix K for a comparison between Heathrow's Q4 performance and the CC's 2002 projections.

by explicitly pushing the unwinding of the profiling into the future. This approach has the disadvantage that Q6 may require considerable amounts of capital for runway 3 and mixed mode, so improving Q5 ratios at the expense of those for Q6 is not a good option. Methods that solely involved adding revenue in our calculations of the allowed charges until the interest cover ratio was high enough to reach solid investment grade would suffer from the disadvantage that they would breach the principle of revenue neutrality across quinquennia which was the explicit basis on which revenue was advanced into Q4.

(c) By decreasing the assumed gearing. This would reduce the interest payable and hence improve interest cover ratios. If we reduced the gearing in our modelling, we would need to change the gearing level in our cost of capital calculation too and such a change would affect the cost of both debt and equity.

5.33 While the options set out above would be positive in terms of financeability (by improving the interest cover and other ratios in Q5), on the basis of the principles of sound economic regulation, we do not consider it would be appropriate to recommend any of them. The CAA's regulatory settlement in Q4 imposed an obligation on BAA to repay in Q5 the benefit it obtained from the profiling of revenues in Q4. If that obligation were now to be waived, in whole or in part, airport charges would increase, for which we see no justification.

5.34 However, as noted in paragraphs 2.8 and 5.11 the CAA has duties under the Airports Act 1986 both to further the reasonable interest of users of airports within the UK and to encourage investment in new facilities at airports to satisfy demands by users. The CAA will consult on its final proposals and may wish to consider if its statutory duties, which go beyond the principles of economic regulation, might lead it to take a different view on this issue.

The resulting maximum level of airport charges

5.35 On the basis of the above assumptions, we recommend the opening yield adjustment, opening yield, and RPI±X formulae for the maximum level of airport charges as set out in Table 22. Table 22 also shows the resulting maximum yields at each airport during Q5 the two airports.

TABLE 22 Recommended maximum level of airport charges per passenger and value of X for Q5 (2006/07 prices)

	<i>Opening yield adjustment</i>	<i>Opening yield</i>	<i>RPI±X</i>	<i>2008/09*</i>	<i>2009/10</i>	<i>2010/11</i>	<i>2011/12</i>	<i>2012/13</i>
<i>Heathrow</i> (RPI+7.50)								
Revenue yield (£)	0.75	9.91	RPI+7.5	10.7	11.4	12.3	13.2	14.1
<i>Gatwick</i> (RPI-0.50)								
Revenue yield (£)	0.57	5.34	RPI-0.5	5.3	5.3	5.3	5.3	5.2

Source: CC study.

Note: At 2007/08 prices the opening yield adjustments are £0.77 at Heathrow and £0.59 at Gatwick; the opening yields, £10.19 at Heathrow and £5.50 at Gatwick.

6. Public interest issues

6.1 A wide range of public interest issues has been raised with us, particularly by airlines and other parties carrying out operational activities at the airports. Some of those

issues overlap with the market inquiry. Where it has proved appropriate to do so, such issues have been held over for consideration in the market inquiry.

Issues raised by airlines

Issues arising from acquisition of BAA by Ferrovial

- 6.2 Some airlines expressed concern about the high level of gearing of BAA and ADI following the acquisition of BAA, particularly:
- (a) that airport charges were now at risk of being called upon to satisfy debts of the BAA group other than those directly incurred in the course of carrying on the airport business because of their inclusion within the security provisions relating to the financing arrangements of the enlarged group;
 - (b) that BAA's financial capacity to deal with shocks had been reduced; and
 - (c) that BAA's ability to provide benefits for airlines and the airports had been put at risk, the airports now being run to maximize cash flow and so reducing investment.
- 6.3 In February 2006, the CAA drew attention, in a published statement on a 'Possible Offer for BAA plc', to the possibility of conditions being imposed under this quinquennial review to remedy adverse effects that 'might relate to or result from transactions'. In its submission to us the CAA recognized that we would need to be satisfied that there had been a course of conduct by an airport operator that had operated or may be expected to operate against the public interest. But it also believed that in the light of other measures it proposed in its recommendations (including the development of adequate ex ante financial incentives and the process of ex-post review referred to in paragraph 4.40) further steps may be unnecessary and potentially undesirable.
- 6.4 Some airlines have argued to us that further measures are necessary, including ring fencing of the regulated businesses and restrictions on the flow of cash out of those businesses. BAA in its submission to us argued that the airlines' concerns were unfounded; it noted that an operational and financial ring-fence was being put around the three London airports and that its proposed refinancing would allow the full level of capex it had proposed, subject to a satisfactory regulatory settlement.
- 6.5 We have therefore considered whether we should make a public interest finding, and impose a public interest condition, in respect of the levels of debt in the Ferrovial group arising out of the acquisition of BAA.
- 6.6 To acquire BAA, Ferrovial and its partners—CDPQ and GICSI—created a group of subsidiaries (the acquisition group) including ADI, which is the parent company of BAA. ADI was the vehicle used to make the acquisition from within the acquisition group. To fund the acquisition, Ferrovial, CDPQ and GICSI subscribed £4.15 billion for shares of FGP Topco and GICSI subscribed £0.38 billion for PIK Notes issued by FGP Topco, the holding company of the acquisition group. The proceeds of that subscription were then lent through the acquisition group until they reached ADI. An intermediate company in the acquisition group borrowed a further £600 million, and the proceeds of this borrowing were lent to ADI.
- 6.7 In addition to funds received from higher up the group, ADI entered into two syndicated loan agreements—a senior facility and a subordinated facility. The senior facility enabled ADI to draw on £4.7 billion of acquisition finance, a £2 billion capex

facility and a £250 million working capital facility. The subordinated facility enabled ADI to draw on £2 billion of acquisition finance. We understand that all the acquisition facilities were drawn on to enable ADI to complete the acquisition of BAA. However, following the sale by BAA of Budapest Airport £820 million of the senior acquisition facility has been repaid.

- 6.8 At the time of the acquisition the senior and subordinate debt were both secured on the shares of BAA, with the senior debt having priority. The subordinated debt was also secured on shares in ADI.
- 6.9 Subsequently, on 19 January 2007, HAL and GAL, along with other major operating companies, granted security over all the present and future assets of Heathrow and Gatwick airports respectively, to Royal Bank of Scotland as security trustee for the lending banks. The debt in ADI supplemented pre-acquisition borrowing in BAA of approximately £6.2 billion (including convertible bonds—£5.46 billion excluding convertible bonds). While much of the pre-acquisition debt was guaranteed by HAL, GAL and STAL, only £30 million of that debt was secured on airport assets and only part of that security was comprised of assets of Heathrow or Gatwick airports.
- 6.10 BAA has told us that the interest cost of the pre-acquisition debt for the BAA group was in the region of £270 million for the year ended 31 March 2006. We also understand from BAA that the budgeted interest charge for the 2007 calendar year is £820 million for the ADI group (including BAA).
- 6.11 The financing of the acquisition of BAA by ADI has had two very important consequences for HAL and GAL. First, the revenue from airport operations including airport charges has had to support a very significantly increased debt funding obligation. Secondly, HAL and GAL have had to grant security over all the assets of Heathrow and Gatwick airports. The assets subject to this security include all the assets used to support the operations of both airports.
- 6.12 However, the acquisition financing structure is not intended to be permanent. It is planned that ADI group including BAA will be refinanced. We understand that the current plan is that the refinancing should be in place in 2008 (subject to market conditions). The rudiments of the post-refinancing structure are these. First, the assets of BAA will be split into two groups: those relating to designated airports and those relating to non-designated airports. It is envisaged that STAL will be part of the designated airports group.
- 6.13 A securitization sub-group will then be set up under BAA. The sub-group will comprise two holding companies, below which will be the securitization parent. That parent will have two subsidiaries: one is the 'asset co' and will hold shares in HAL, GAL and STAL (and thus indirectly hold shares in the company that operates Heathrow Express, which is owned by HAL) while the other is the 'issuer co' and will issue bonds.
- 6.14 The issuer co will issue Class A and Class B bonds in tranches. The bonds may or may not be guaranteed. There is also provision for the issue of further debt within the securitization, and for the issue of debt that will be subordinated to the securitization. It is envisaged that BAA's pre-acquisition debt will migrate to the issuer co.
- 6.15 The proceeds of the bond issues will then be lent to HAL, GAL and STAL. These companies will have the benefit of initial capex and working capital facilities. The issuer co will have the benefit of a liquidity provider.

- 6.16 There are extensive security arrangements, relying on the assets of the airports. It is envisaged that some but not all tranches of the bonds will benefit from a financial guarantee by a 'monoline' insurance company to raise the credit rating on this element of the financing to AAA. There will also be hedging facilities for the issuer co.
- 6.17 We understand that the 'non-designated' assets of the BAA group will be transferred to a company owned by ADI so that it will be held above BAA. [✂]
- 6.18 We view the arrangements for the acquisition of BAA with potential concern for two reasons. First, we are concerned about the ability of BAA to develop the infrastructure and facilities of Heathrow and Gatwick airports for the benefit of airlines and passengers given the competing funding obligations in ADI and BAA. Secondly, we are concerned about the loss of control over the assets of Heathrow and Gatwick airports that results from the granting of security, particularly where the sums secured are so large. HAL and GAL are the operators of Heathrow and Gatwick airports and own all the assets used in the operation of the airports. We consider it desirable that they and not the creditors of ADI should have control of the assets constituting Heathrow and Gatwick airports.
- 6.19 During the course of the inquiry we have received conflicting views on whether we have jurisdiction to impose a public interest condition in relation either to the levels of debt or to the granting of security. We accept that a number of jurisdictional issues arise, and that they are not straightforward.
- 6.20 However, we have not gone so far as to form a definite conclusion on whether the acquisition financing or the granting of security is against the public interest. This is for two reasons. First, because the behaviour against which we can now act by public interest condition must have occurred in the period prior to the making of the present reference. While the acquisition financing falls within that period, we accept that it is intended that the financial structure of the BAA group and the quantum of security will soon be changed under the proposed refinancing. We consider that it could be appropriate to act now in relation to the acquisition financing notwithstanding that it is about to change. However, from the standpoint of the CC's public interest jurisdiction, our concerns about the levels of debt in the BAA group are for the long term rather than for the short term. We consider that it is reasonable for us to assume that the refinancing will take place. The arrangements under the refinancing are outside the scope of our public interest jurisdiction in this quinquennial review because the refinancing has yet to take place.
- 6.21 Secondly, because we have not identified satisfactory remedies. In approaching remedies, we have concentrated on measures adopted in other regulated industries. For example, we have considered whether we should impose a ring fence around assets belonging to HAL and GAL to ensure that airport revenues are used to fund the development of the airport. Such a remedy would be designed to protect the interests of airport users. It would go beyond the ring-fencing arrangements proposed under the refinancing arrangements, the purpose of which is to protect the creditors of members of the BAA group. However, to impose such a ring fence would be a major step, would require a very complicated condition to be developed, and would go some way towards imposing a licence regime on airport operators where none is provided by statute.
- 6.22 We considered other remedies. For example, one step that could be taken would be to require the appointment of independent non-executive directors to the boards of HAL and GAL. We understand that this is an approach adopted in the regulation of water companies. Such appointments would have provided a balance to the interests of shareholders already represented on the boards of HAL and GAL. However, while

this would be a relatively simple direction to impose through a condition, for it to be an effective remedy the governance structure of the BAA group would have to change.

6.23 Our concerns about the lack of a suitable remedy, together with fact that the refinancing is currently outside the scope of the CC's public interest jurisdiction, has led us to conclude that there is no public interest condition that should be pursued in respect of the levels of debt in the BAA group or other behaviour that supports those levels of debt.

6.24 However, the financial structure and gearing levels of BAA, together with the remedial powers in relation to them, are matters to which we will return in the market inquiry.

- *Other Ferrovial interests*

6.25 Some concern has been expressed to us about Ferrovial's ground handling interests at Heathrow and Gatwick. However, we have seen no evidence of any conduct on which to base a public interest condition.

6.26 Concern has also been voiced about Ferrovial's construction interests, and whether there could be transfer pricing implications in relation to work performed by Ferrovial companies at Heathrow and Gatwick. Again, we have seen no evidence of any conduct on which to base a public interest condition.

Quality of service

6.27 Quality of service is discussed in Appendix L. Following an adverse finding in our last report, an SQR scheme was set up for both airports, based on each airport paying relatively small rebates to airlines when service fell below a defined standard in a particular terminal:

(a) The scheme currently covers the following aspects of service: stand availability; jetty availability; pier service provision; fixed electrical ground power availability; people mover availability; inter-terminal transit availability (at Gatwick); security queues; arrivals baggage carousel availability; passenger measures based on BAA's QSM survey of passenger perception for departure seat availability, cleanliness, wayfinding and flight information; and an aerodrome congestion term. As recommended in our last report, targets were set at or near to then current performance levels.

(b) The scheme is currently subject to a cap of 3 per cent of airport charges in each terminal. This maximum annual rebate is currently payable after six months of service quality failure.

(c) It seems generally agreed that the scheme has focused management attention on these quality elements; standards have been generally achieved and performance improved but with the notable exceptions of pier service in Heathrow Terminal 4 and Gatwick North Terminal; and in security queuing following the introduction of new DfT directives in 2006.

6.28 Despite the operation of the scheme we have received strong criticisms of aspects of quality of service, particularly at Heathrow, and suggestions from airlines that aspects of quality of service continue to operate against the public interest, particularly in relation to central security queuing and some activities not currently included in the

scheme. The OFT has observed in relation to the market reference that both Heathrow and Gatwick rank very poorly in passenger perception of quality of service compared with other airports. Recent surveys confirm this.

- 6.29 We have examined the scheme in order to determine whether all the relevant facets of service quality are subject to measurement; whether the standards set under the scheme are adequate; and whether the measurement techniques being used are valid and reliable. The recent public criticisms of passenger experience at the airports, particularly Heathrow, to which we referred in paragraph 2.25, cannot be blamed solely on BAA, but also result from the performance of other service providers at the airport, both public and private sector, and from the new security climate and its requirements. These problems have been exacerbated by the excess demand on airport capacity. But aspects of BAA's performance have been poor, and the SQR system, which seemed to have worked effectively until the beginning of 2006, now needs to be developed to cope with the significant changes in requirements that have since been introduced.
- 6.30 Quality of service standards remain important to ensure that the capex and opex provisions allowed for in prices achieve the increases in standards for which they are intended, and to ensure that any reductions in opex do not result in a deterioration in service.
- 6.31 Performance has been particularly poor in relation to the management of the maximum length of security queues and in the management of security queues for transfer passengers, airline staff or perimeter control points—to the detriment in each case of passengers, who may miss flights, and airlines when flights are delayed. Other concerns expressed to us include the weakness of the current SQR system to address continued failures of the most important items of passenger sensitive equipment (such as particular lifts and escalators), causing disruption and inconvenience to users.
- 6.32 In our 2002 report we found that HAL and GAL had pursued a course of conduct contrary to the public interest by failing to make prices paid sufficiently reflect the level of service provided. We have seen no reason to believe that there is any case for a relaxation of the current SQR condition and we consider that it should continue in force and that some standards should be raised. We consider that HAL and GAL have displayed the same failings in the last five years. In particular they have failed to manage security queuing and queue times to avoid unacceptable delays to passengers, crew and flights and consequently have not furthered the reasonable interests of the users of Heathrow and Gatwick. We consider that these effects adverse to the public interest can be remedied or prevented by the extension and strengthening of the existing SQR conditions and/or by the imposition of new conditions.
- 6.33 We recommend that additional elements should be added to the SQR scheme to address conduct of the airport operators that has operated against the public interest since the last quinquennial review, and we have a number of recommendations concerning the effective monitoring of service and quality standards.
- 6.34 Under the Act it is for the CAA, in consultation we hope with the airlines and BAA, to establish the condition or conditions—including any specific targets and guidelines—that will modify and supplement the SQR scheme. Constructive Engagement is continuing on these points. However, we have some specific recommendations about how elements of the conditions should be set.

- 6.35 We recommend that the scope of the SQR system should be extended to include transfer security queuing, staff security queuing, control post queuing, and aircraft manoeuvring (stand entry guidance systems) and higher standards set for some of its existing elements.
- 6.36 The current standard for central security queuing is that security queues should be less than 10 minutes long on 95 per cent of occasions when they are measured. For purposes of SQR reporting, central search security queuing times are measured every 15 minutes. In our view, this system fails to provide the necessary incentives to address the detriment to users of long security queues. While average queuing times are important, targets relating to a standard having to be met 95 per cent of the time can be achieved when there are actual queuing times far in excess of that standard during the remaining 5 per cent of the time, with significant detriment to users, including missed flights and delays to aircraft. The amount by which the 10-minute target is breached also makes no difference to measured standards: there is no greater incentive to reduce delays from 30 minutes to below 10 minutes, than from 11 minutes to below 10 minutes; indeed to the extent that the latter is the easier to achieve, the incentive is to give lower priority to tackling the longest queues. We therefore recommend that additional standards are needed to regulate maximum queue lengths.
- 6.37 Further, although queue lengths are measured for the whole of the operating day, missed targets only attract rebates for certain periods of the day. We think this may lead to distortion and recommend that the SQR should apply to queue lengths for the whole of the operational day.
- 6.38 Finally, the number of passengers affected by a breach of the queuing time standard in a particular measured period does not affect measured performance. Under the current system the periods which count towards the rebate broadly correspond to the morning and evening peak passenger flows, when the greatest numbers of passengers are likely to be affected by any breach of the queuing time standard. However, this would not be the case if, as we recommend, the SQR were to apply to queue lengths for the whole of the operational day. Therefore, we recommend that it would be more appropriate to express the targets in terms of the proportion of passengers who experience on-target performance rather than the proportion of occasions on which performance is measured when on-target performance is achieved.
- 6.39 We therefore recommend that, as well as the agreed current targets, there should be targets relating to maximum queue lengths. BAA and the CAA believe that the costs of ensuring compliance 100 per cent of the time would be excessive. They would prefer any additional target to apply 99 per cent of the time. We believe that the queuing target should be expressed in terms of the proportion of passengers affected and that the percentage of passengers to which it applies should in our view be as close to 100 per cent as possible, subject to the costs and benefits involved. Which percentage is to be preferred, and the maximum queuing time to which it relates, should be resolved through the ongoing process of Constructive Engagement with the involvement of the CAA as necessary.
- 6.40 We are not supportive of BAA's decision (taken without, as noted in paragraph 4.143(a) above, consultation with airlines) to increase the current security queuing target from a queue length of less than 10 minutes 95 per cent of the time to one of no more than 5 minutes, at least not until current performance standards and an additional standard relating to maximum queue lengths are achieved, and the airlines, the CAA and BAA agree the project costs involved and that they are justified.

- 6.41 We also recommend that queuing time measurement be automated. If a maximum queue standard is set it is clearly essential for queue measurement to be continuous throughout the operational day.
- 6.42 We also recommend some tightening or other improvements to many of the targets, (including the proposal to relate pier service to the facilities provided by the capital programme) and increased weighting of areas of significant consumer concern such as wayfinding and queuing, although we consider that the proposal of both BAA and the CAA to decrease the weighting of the delay term may be premature given that it has only been in force for a year.
- 6.43 Passenger survey data is likely to remain necessary to measure performance in a number of areas. We remain concerned at the apparent differences between the results of such surveys and the low rankings of the airports in international surveys. Hence, we recommend that, in future, the design and methodology employed in such surveys should either be independent of BAA; or subject to regular, independent, annual audit as discussed with stakeholders and supervised by the CAA. Such an annual audit should extend to the SQR scheme as a whole rather than be limited to the QSM element.
- 6.44 Whether service quality performance under service quality conditions, and hence the liability to penalties for non-performance should continue to be carried out on a six-month basis or instead on a 12-month basis should be resolved in discussion between BAA, the CAA and the airlines.
- 6.45 We think that there should be an increase in the penalties for non-performance under service quality conditions. The proportion of BAA's revenues from airport charges at risk is currently 3 per cent. We recommend that it should be increased to between 5 per cent and 10 per cent, subject to the outcome of discussion between BAA, the CAA and the airlines.
- 6.46 We recommend there should be no suspension of the SQR system without consultation with airlines and agreement of the CAA; provisions for planned maintenance should be agreed in advance; and the effects of unplanned maintenance, eg from passenger damage, should be allowed for in the base standard.
- 6.47 We see no justification for introduction of bonuses as well as rebates: BAA would gain in other ways if the performance standards are met.
- 6.48 We see advantages in the CAA's proposal to encourage publication of performance measures of airlines. However, we consider that any such publication should be under the auspices of the CAA. We may wish to consider mainly in the context of the market inquiry sources of delay for which BAA is not directly responsible, such as check-in and baggage performance.
- 6.49 The scheme would be further strengthened by alignment of the incentives on the BAA business with the incentive schemes for BAA executives.

Other issues raised by airlines

- 6.50 A number of other public interest issues were raised with us by airlines.
- 6.51 We referred in paragraphs 4.13 et seq to a number of complaints about inadequate consultation on capital expenditure, about which we also expressed concern in the last inquiry. Nonetheless, most of the airlines to which we spoke did regard consultation as having improved as a result of Constructive Engagement. The CAA

and BAA are considering improvements to Annex 4 of the CAA's 2003 decision document including the recommendations in the Cotterill report; and we noted in paragraphs 4.19 and 4.25 that BAA was willing to enhance the Annex 4 agreement, that it was open to a mid-quinquennial review of capital expenditure efficiency and that it would also agree to post-completion reviews. Although we remain concerned about inadequacies in BAA's consultation processes, given the improvements that have been made and the prospect of further improvements to Annex 4, there is insufficient ground to regard consultation on capital expenditure as a course of conduct against the public interest in the relevant period we have to examine. This may nonetheless be an issue relevant to our market inquiry.

- 6.52 However, in our view, inclusion of commercial revenues among the issues on which BAA is currently required by the CAA to consult the airlines would be appropriate given the mutual interests of BAA and the airlines in identifying scope for increasing commercial revenues. We found BAA's reluctance to share such information—which is unlikely to involve releasing information of value to competitors—unusual behaviour for a commercial operator. Sharing of information under confidentiality agreements would seem normal practice for joint ventures or associations in the private sector. This is one of the possible behavioural features of the market for airport services we may wish to consider further in the market investigation.
- 6.53 There were also complaints about delays in providing forecasts of non-regulated charges; but these were for the most part provided during the course of our inquiry.
- 6.54 There were also criticisms of disposals of assets without consultation which could be required for future operational use. We referred in paragraph 4.51 to the disposal of assets to APP. BAA acknowledged there had been no consultation with airlines on those disposals, but it had assured the CAA that none of the assets were envisaged as required for operational purposes under the airports' then Masterplans, but that in the event they were in future required for operational purposes, they could be reacquired. Subsequently, with the HET development, it is likely that some assets will be needed for operational purposes.
- 6.55 BAA had said that it had not been required to consult; but BAA and the CAA agreed that a requirement to consult on any disposals from the RAB could also be part of the CAA's Annex 4 consultation requirements for Q5 and the continuing process of Constructive Engagement. This would in our view be appropriate given the legitimate interests of the airlines in issues relating to airport land and property that could affect their operations, including the continued availability of land to ensure adequate fuel supplies. However, the CAA's lack of powers over asset disposals is a matter we may wish to consider in the market inquiry.
- 6.56 There were also complaints about failure to plan adequately to increase facilities for fuel storage at Heathrow or make available the necessary land; and failure to coordinate an adequate response to the shortage of fuel supplies resulting from the Buncfield fire. Given the shared responsibilities for fuel supply at the airport, we had insufficient evidence to suggest HAL had pursued a course of conduct in relation to fuel supply against the public interest, but the continued availability of land to ensure adequate fuel supplies is clearly another matter to be included in the requirements for consultation and Constructive Engagement.
- 6.57 There were also complaints about the lack of intra-airport competition, from separately owned terminals or in the development of new terminals or in competitive tendering for airport operation. Some airlines from whom we heard, however, did not believe there was scope for intra-airport competition, given the shortage of capacity

at the airports. We regard lack of intra-airport competition as an issue for the market inquiry.

- 6.58 Lack of differential charging (other than under the SQR scheme) between terminals to reflect different quality of service, for example between South and North Terminal at Gatwick, or, in future (and therefore outside the scope of this inquiry) between Terminal 5 and Terminal 1 and Terminal 3 at Heathrow was a further source of complaint. Significant differences in quality of service should, however, be addressed by BAA's capital programme. This is an issue we may wish to consider further as part of the market inquiry, but we do not believe there is sufficient ground to regard lack of differential charging between terminals (other than under the SQR scheme) at these airports to reflect different quality of service as currently against the public interest.
- 6.59 One airline argued that the flat rate structure of the runway charges could disadvantage operators of short-haul aircraft and fail to reflect differences in the costs of handling larger aircraft, particularly the A380 when it operates at either airport. Subsequently, we were made aware of considerable concern about the possible withdrawal of services from regional airports into Heathrow, which was to some extent attributed to the CAA's proposals to allow airport charges at Heathrow to increase. But, as both the CAA and BAA argued, any such withdrawal of regional services is more likely to reflect the current excess demand for Heathrow, further exacerbated by Open Skies, and the resulting value of slots at Heathrow that can clearly be most profitably used by longer-haul flights and/or by larger aircraft. The CAA also pointed out the growing number of direct international services from regional airports, and the connections available via European hubs served from regional airports.
- 6.60 We understand there are circumstances under which the Secretary of State would consider imposing Public Service Obligations (PSOs) on routes serving London airports, based on the relevant EU regulation. It is for regional bodies (Regional Development Agencies, Devolved Administrations etc) to apply to the Secretary of State for a PSO, based on an assessment of the economic importance of the services to the region concerned. The DfT would then, as part of its consideration of the application, assess the opportunity cost of ring fencing a London airport slot for these services. Since the guidelines were published in December 2005, there have been no such applications, and there are no PSOs on any domestic (or other) routes to and from London airports. However, if a region has services to any one of the London airports (the three BAA London airports plus London City and Luton) it will be considered as having a service to London; this means that the withdrawal or reduction of a service to, for example, Heathrow will not be enough to trigger the consideration of a PSO as long as it is considered that there is an adequate service provided by the combined services offered to the London airport system as a whole. To qualify for the imposition of a PSO, a route must meet one of three criteria: it must serve a peripheral region (defined by the DfT as being more than three hours from central London by public surface transport); serve a development region; or, be a thin route to any regional airport (defined by the DfT as fewer than 50,000 passengers a year). Any limitations to the policy or its application are, however, matters for the Secretary of State to consider and not ourselves.
- 6.61 We also received complaints about attempts by BAA to monopolize IT services at Heathrow, requiring airlines in some terminals to use BAA's IT services (such as CCTV and WIFI networks in Terminal 5) at charges in excess of market rates. IT systems are an important area for inclusion in the requirements for consultation and Constructive Engagement, to which BAA agreed.

6.62 Finally, we received concerns about charges by BAA for services to passengers of reduced mobility, and BAA's suggestion that such passengers be taken through its retail outlets. This, however, relates to arrangements to be introduced in 2008, following EU requirements that such services be provided by or on behalf of airport operators, for which BAA has only recently sought tenders, and cannot be regarded as a course of conduct in the period we have to consider.

Concerns from other parties

6.63 A number of concerns were raised with us by other parties, many of which have also been raised with us in the context of other BAA airports and in the context of the market inquiry, and are appropriately considered in that inquiry. Several of them related to a general issue of access to airport forecourts including whether BAA is able to leverage its position in controlling such access to distort competition in related markets.

6.64 As at the time of our last report, we received a number of complaints about arrangements for Heathrow taxis. Since that report, the CAA has examined the levy on taxis used to finance Heathrow Airport Licensed Taxis Limited (HALT), and, as suggested in our previous report, was satisfied that the HALT service was of net benefit to taxi drivers and their passengers. The relationship with HALT was subsequently formalized in a contract.

6.65 On the level of charges to taxis at Heathrow, the taxi feeder park entry fee, which includes the HALT levy, has historically failed to cover costs, including indirect costs. We received complaints about what was described as a further 20p levy on taxis using Heathrow, which was used to finance the Journeypay credit card payment system. BAA told us that that was not an additional levy, but was deducted from the element of funds for HAL's cost recovery to fund a trial scheme; there was also no obligation on taxi drivers to use Journeypay. We have not received sufficient evidence to suggest a course of conduct against the public interest, but the cost basis used in the setting of taxi charges in general could be included in the consideration of the appropriate basis for allocating costs to which we referred in paragraph 4.166.

6.66 We have received a large number of complaints about charges for use of Heathrow by minibuses more than doubling. BAA told us that it subsequently allowed smaller minibuses to use a particular area on the ground floor of a multi-storey car park, cutting their charge to one-third or one-quarter of its previous level. It was also considering other means to reduce charges for other vehicles next year. Given such moves, it would be difficult to establish a course of conduct against the public interest, but this could also be an issue for us to consider in the market inquiry if it has not already been resolved.

6.67 We also received a number of complaints about charges for picking-up and setting down passengers being driven to and from independent off-airport car parks; the location of the stops required to be used; the prohibition on the use of the airport name; and the use of the BAA website to refer only to their own services and not those of competitors. The concerns relate to other BAA and some non-BAA airports as well as to Heathrow and Gatwick and would be better dealt with in the market inquiry.

6.68 We also received complaints (primarily in the context of the market inquiry) about BAA's consideration of 'consolidation' of car hire activities and the charges for use of airport facilities, for Heathrow and Gatwick but also other BAA airports. Since an element of these complaints relate to a future course of conduct and to other airports,

they would best be considered in the market inquiry, as would complaints about the selection of goods stocked by WDF.

- 6.69 We also received complaints about BAA's use of its compulsory purchase order powers to acquire land not required for operational use, but for developments which could be undertaken by other companies (including office developments and long-term car parking), and some of which could as a result be subsequently sold at a significant profit. This issue mainly related to Stansted and pre-privatization land purchases at Gatwick, so is likely to be better considered in the market inquiry.
- 6.70 We have also received a number of complaints from users about poor quality of service and facilities. We have noted in paragraphs 2.25 and 6.29 the public concern about service quality, which is relevant to our consideration of service quality and capex at the airports. We also received complaints about prices in BAA's retail outlets, including the foreign exchange rates charged at the airports. BAA told us that prices in retail outlets, including that for foreign exchange, were set on the basis of High Street rates but we are aware of recent press comment about misleading information on BAA's pricing policy in its advertising for its retail outlets. We may wish to consider aspects of BAA's retail policy in the market inquiry. We also received complaints about a refusal to stock certain alcoholic drinks at WDF outlets.

7. Summary of conclusions

- 7.1 On the general approach to regulation, we recommend that:
- (a) Airport charges for the two airports should be set on the basis of each individual airport rather than on a system basis (paragraph 3.5).
 - (b) Airport charges should be set on a single-till basis (although BAA has suggested that aspects of this issue could be considered further in the market inquiry) (paragraph 3.10).
 - (c) Regulation should continue to be by means of RPI-X (paragraph 3.13).
 - (d) There should be no 'opex roll-over' which would have potentially allowed BAA the benefits of opex reductions (or disallowed some of the costs of increased expenditure) in the subsequent review (paragraph 3.15).
 - (e) There should not be a volume term for differences between the actual number of passengers at each airport in any year and the numbers expected when the airport charges formula was set (paragraph 3.19).
 - (f) Changes in airport charges should continue to be related to RPI rather than, for example, the CPI (paragraph 3.22).
 - (g) Regulation should continue to be on the basis of revenue yield—ie £ per passenger (paragraph 3.24).
 - (h) Airport charges should continue to be before any reduction of discount (paragraph 3.25).
 - (i) Non-passenger flights should continue to be excluded from the regulated yield, but subject to the requirement that the charges applied to such flights (eg for landing) should be the same as for passenger aircraft (paragraph 3.27).

- (j) The correction factor should be amended to recovery of an absolute amount, not an amount per passenger, and provision for recovery in Q5 of over/under-recovery in Q4 (paragraphs 3.29 and 3.30).
- (k) The security cost pass-through in Q5 should be increased to 90 per cent (subject to the deadbands of £14 million at Heathrow and £6 million at Gatwick, and subject to some subsequent efficiency adjustment); there should also be provision for passing through to Q5 75 per cent of additional costs of meeting additional security requirements (as opposed to the tightening of service standards) in the last year of Q4 (paragraphs 3.32 and 3.34).
- (l) Baggage infrastructure costs should be treated as part of airport charges (but not the cost of operating the system which BAA has proposed would be subject to a separate per bag charge) (paragraph 3.38).
- (m) The current fuel turnover levy should be discontinued and the amounts previously raised be recovered from airport charges (paragraph 3.39).
- (n) There should be provision for airport air traffic control charges to be included in airport charges following the DfT's decision to discontinue separate charges for this service (paragraph 3.41).
- (o) The charging formulae for Heathrow and Gatwick should be subject to an enhanced number and scale of triggers, by which the value of X would be reduced if particular projects do not meet particular milestones by a specified date. The number, specification and scale of those triggers should be determined by the CAA taking into account the outcome of further discussions between airlines and each airport (paragraphs 3.17 and 4.34).

7.2 On the maximum level of airport charges, we have recommended:

- (a) At Heathrow a maximum opening yield of £10.19 (at 2007/08 prices) with airport charges per passenger subsequently increasing at no more than RPI+7.5 (paragraph 5.35).
- (b) At Gatwick, a maximum opening yield of £5.50 (at 2007/08 prices) with charges subsequently increasing at no more than RPI-0.5 (paragraph 5.35).

7.3 On the public interest in our 2002 report we found that HAL and GAL had pursued a course of conduct contrary to the public interest by failing to make prices paid sufficiently reflect the level of service provided. We have seen no reason to believe that there is any case for a relaxation of the current SQR condition and we consider that it should continue in force and that some standards should be raised. We consider that HAL and GAL have displayed the same failings in the last five years. In particular they have failed to manage security queuing and queue times to avoid unacceptable delays to passengers and flights and consequently have not furthered the reasonable interests of the users of Heathrow and Gatwick. We consider that these effects adverse to the public interest can be remedied or prevented by the extension and strengthening of the existing SQR conditions and/or by the imposition of equivalent new conditions.