

## Operating expenditure

### Introduction

1. This appendix discusses Stansted's opex performance in Q4, its projections for opex in Q5, the CAA's preliminary projections for the level of opex that should be allowed in the calculations of Stansted's maximum airport charges in Q5, and our assessment. It also outlines the consultants' studies on which the CAA's preliminary projections were based and the results of the updates to these consultants' studies carried out on our behalf.

### Performance during Q4

2. We first considered BAA's performance at Stansted during the last quinquennium. The following analysis relates to the original five-year period of Q4 (ie from 2003/04 to 2007/08 inclusive).
3. Stansted is projected to overspend the Q4 opex, allowed for in the CAA's 2003 price determination, by £15.5 million in out-turn prices or £17 million (3 per cent) in constant 2007/08 prices.<sup>1</sup> Table 1 shows BAA's recent opex projections for the first five years of Q4, in 2007/08 prices, compared with the regulatory projections made by the CAA in its 2003 determination.

TABLE 1 BAA Stansted opex in Q4

	<i>£ million, 2007/08 prices</i>					
	2003/04	2004/05	2005/06	2006/07	2007/08	Total
Determination	94	103	110	112	117	535
Out-turn	93	100	109	120	139	561
Variance	-1	-2	-1	7	22	26
Percentage variance (%)	-1	-2	-1	7	19	5
	<i>£/pax, 2007/08 prices</i>					
<i>Opex per passenger</i>						
Determination	5.37	5.32	5.41	5.32	5.23	5.33
Out-turn	4.81	4.75	4.88	5.03	5.90	5.09
Variance	-0.56	-0.57	-0.53	-0.29	0.67	-0.24
Percentage variance (%)	-10	-11	-10	-5	13	-5

Source: CAA, based on BAA regulatory accounts and CAA decision 2003 (Table E-1). 2007/08 data from BAA.

Note: Subject to rounding differences.

4. Stansted's opex for the first three years of Q4 was less than the regulatory forecast. We discuss in paragraph 6 the reasons why the opex in the next two years was higher than expected.
5. Table 2 shows Stansted's opex variances for Q4 in out-turn prices broken down by input cost categories.

<sup>1</sup>For comparison, our report on the quinquennial review of Heathrow and Gatwick showed that both airports expected larger percentage overspends than Stansted. Table 1 of Appendix G of that report showed that Heathrow was projected to overspend its regulatory opex allowance for Q4 by 15.7 per cent and Gatwick was projected to overspend its allowance by 9.2 per cent, both at out-turn prices. BAA largely attributed these variances to exceptional items.









14. We discuss our opex projections in paragraphs 112 to 143.

## BAA's Q5 opex projections

15. BAA prepared its opex projections through a bottom-up analysis of the individual input cost items. It told us that it considered a number of factors when assessing the cost base for its airports. These included:

- passenger forecasts;
- airline operating needs and demands;
- business risk;
- market-driven impacts;
- statutory and compliance requirements;
- productivity and operational efficiency improvements; and
- the impact of capital plans.

16. These factors, together with local knowledge and technical expertise, drove BAA's bottom-up forecasting process, which included developing productivity and operational efficiency targets. It produced two sets of projections relevant to our review: its March 2008 projections, which formed the basis for the CAA's reference to us; and its May 2008 projections, which were submitted directly to us. The analysis below is based on BAA's May 2008 projections.<sup>1</sup>

17. Table 4 shows BAA's May 2008 projections of opex at Stansted.

TABLE 4 BAA projections for Stansted opex, May 2008

*£ million, 2007/08 prices*

	2009/10	2010/11	2011/12	2012/13	2013/14	Q5 average	Q5 total
Security staff	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Other staff	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Total staff costs (incl pensions)	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Constabulary	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Rent}	12	12	14	14	15	13	66
Rates}							
Utilities	13	14	15	15	16	15	74
Maintenance and equipment	11	11	11	12	13	12	58
Other operating costs	24	24	26	28	31	27	134
Central costs	27	25	24	25	25	25	126
Volume	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BAA total	150	151	156	163	170	159	789

Source: BAA.

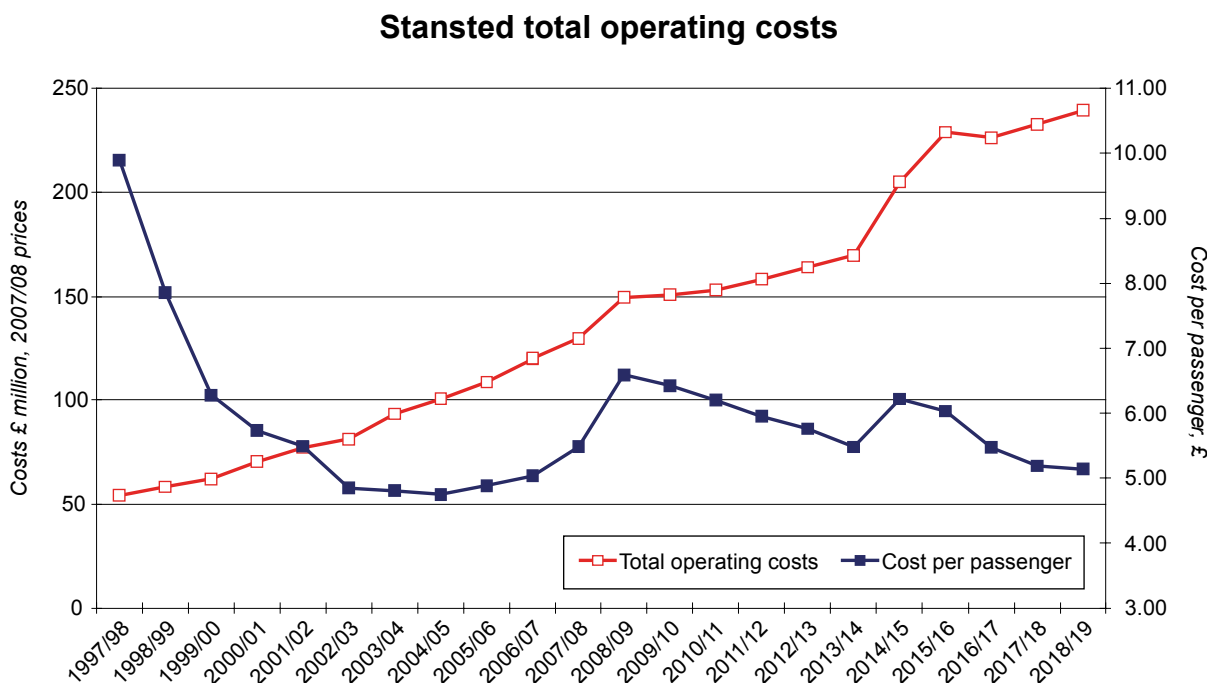
**Notes:**

1. Subject to rounding differences.
2. N/A = not applicable.

<sup>1</sup>The May 2008 projections were the last projections formally approved by BAA. In September 2008, BAA recalculated its projections at our request (see paragraph 10); this recalculation was not, however, formally endorsed by BAA.

18. Figure 2 compares the total opex that BAA projected for Stansted in May 2008 with historic expenditure. It told us that the increase in opex at Stansted in 2008/09 was associated with the introduction of a new contract for PRM services, the recharge of ANS costs and the significant increase in central costs due to the removal of the cap on such costs. This increase was slightly offset by a reduction in unit costs caused by efficiency measures.

FIGURE 2



Source: BAA.

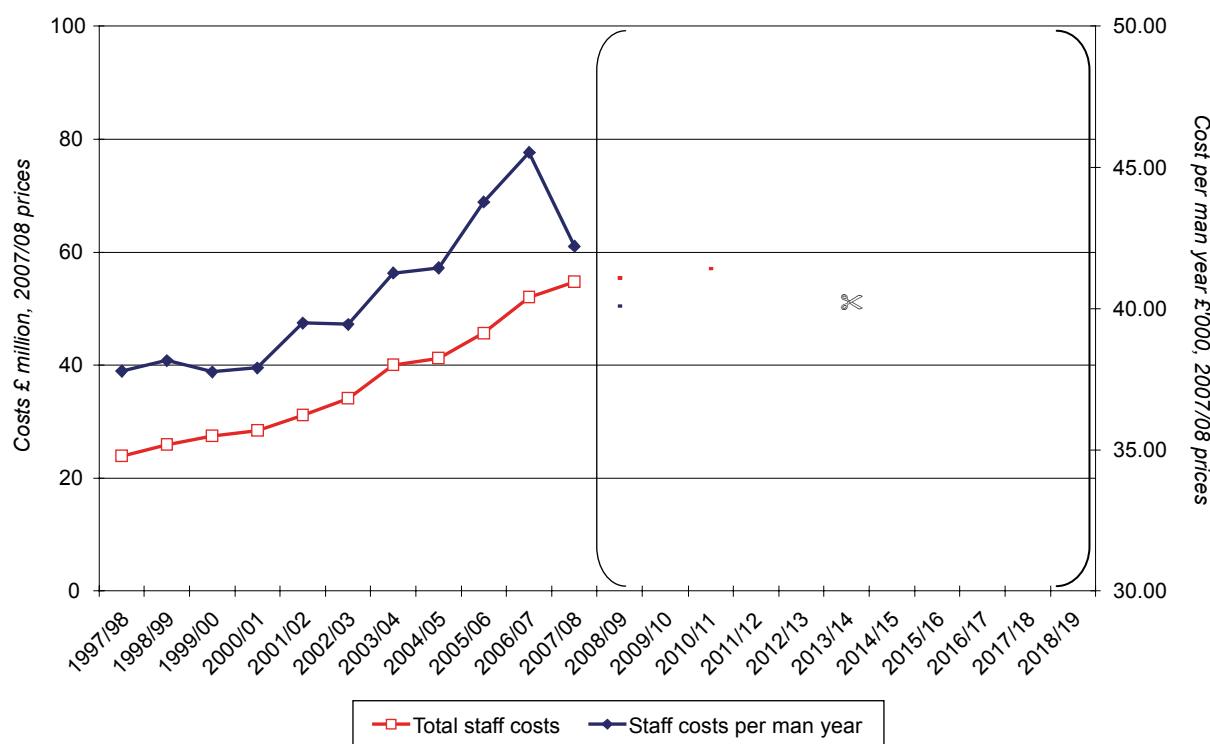
19. The large increase in opex in 2015/16 and 2016/17 is associated with the planned opening of the second terminal and associated facilities.
20. BAA told us that a large proportion of the airport's cost base was fixed in the short to medium term. Nonetheless, once it had established a base plan, it said that it evaluated possible productivity and operational efficiency improvements and its projections included such improvements, including those resulting from various change programmes (see paragraph 31). However, these efficiency improvements had been offset by the cost of additional security staff.
21. The CAA told us that there was a great deal of uncertainty in BAA's overall projections, including that surrounding passenger numbers, the optimum year in which new runway capacity should be provided, future DfT security requirements, and BAA's own efficiency.

**Staff costs and efficiency**

22. Figure 3 compares the staff costs that BAA projected for Stansted in May 2008 with historic expenditure. It also shows staff costs per man-year.

FIGURE 3

**Stansted staff costs**



Source: BAA.

23. BAA told us that staff costs had increased at an average growth rate of 4.9 per cent a year in Q2 and 7.4 per cent a year in Q3, and were expected to increase by 6.7 per cent a year in Q4. This was significantly below the overall growth rate in passengers over the same period. Staff costs per passenger had thus fallen from £8.22 in 1992/93 to £4.37 in 1997/98 and were projected to be £2.45 in 2008/09. The rising productivity up to 2001/02 was largely driven by there having been a large number of staff in functions with fixed overheads that were relatively unaffected by the substantial increase in passenger volumes. The terrorist attacks of 11 September 2001 had led to steadily increasing security requirements over the years up to 2006, which had necessitated the recruitment of a substantial number of additional staff. BAA told us that, consequently, productivity growth had been slower since 2001/02, adding that the sharply increased cost per man-year in 2005/06 was caused by increased bonuses, and the cost of termination payments and share-based payments. The further increase in cost per man-year in 2006/07 was attributable to additional pension costs. Costs per man-year fell in 2007/08 as a result of a reduction in pension costs following advice from BAA's actuaries.
  
24. As the new security requirements had now been fully implemented, BAA expected staff costs to be more stable in Q5. Its May 2008 projections showed staff costs at Stansted increasing by 10 per cent between 2008/09 and 2013/14. This increase was mainly accounted for by its projection that staff costs per man-year would increase by [redacted] over Q5 and Q6. In Q6, BAA expected significant increases in staffing levels, in particular in 2014/15 and 2015/16, as a result of the projected opening of the second terminal and associated facilities.
  
25. BAA's manpower costs have been subject to thorough scrutiny in reports by IDS, on behalf of the CAA in 2006 and in 2008 for us. We set out some of the key points of

the IDS reports in Annex 1, together with information about trade union membership and collective bargaining.

### *Security staff*

26. A major part of airport manpower costs is attributable to security staffing. BAA told us that the increases during Q4 were driven mainly by new security directives from the DfT. The most significant of these changes were made in August, September and November 2006. BAA told us that, by 2007/08, an additional 135 full-time equivalent (FTE) security staff had been recruited at Stansted since October 2006 to comply with these security directives. It estimated that the cost of implementing them had been about £8 million (excluding capex). This had increased out-turn security opex from £1.10 per international departing passenger (IDP) in 2001/02 to £1.50 per IDP in 2006/07. However, the security staff increases were less marked at Stansted than at Heathrow and Gatwick, as the standards for the security service at Stansted were not as demanding as those at Heathrow and Gatwick<sup>2</sup> (see Appendix N). BAA had also assumed, in line with the policies of its customer airlines, that the majority of passengers at Stansted would still only be allowed to take one cabin bag through security (unlike those at Heathrow and Gatwick).
27. BAA's projections assumed that security staff pay would increase by [%] and that productivity would increase during Q5 from a projected [%] passengers per man-year in 2008/09 to [%] passengers per man-year in 2013/14.

### *Non-security staff*

28. BAA's May 2008 projections showed non-security staff numbers remaining relatively flat over Q5 with only 14 additional staff, predominantly in the fire service and other airside operations. BAA also included a 'stretch' target reduction of 20 non-security staff in 2013/14 (see paragraph 35). BAA assumed that pay would increase by [%].

### *Productivity measures*

29. BAA told us that the main productivity measures it considered were passengers per man-year and total staff costs per passenger. In addition, it also took into account pay-related costs per passenger and passengers per average staff man-years. Rostering efficiency had been high at Stansted, allowing BAA to handle fluctuations in passenger numbers throughout the day.<sup>3</sup> It said that it aimed to achieve a higher degree of resilience, both to deal with the more challenging security environment and to improve reliability, thus meeting the requirements of airlines throughout the operating day. To do this a further 83 man-years would be required for security in 2008/09. Figure 4 shows the overall labour productivity assumptions for Stansted, which BAA built into its May 2008 projections.

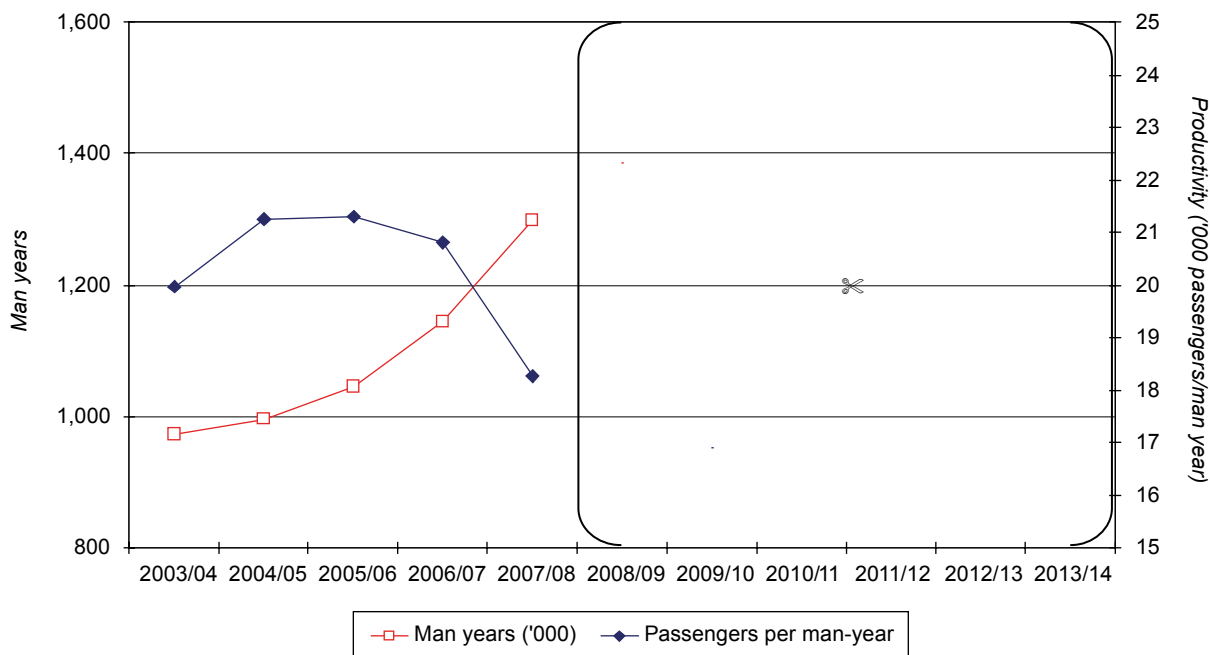
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<sup>2</sup>Heathrow and Gatwick had changed from a standard of passengers having to queue for less than 10 minutes on 95 per cent of occasions when queueing was sampled to a standard of passengers having to queue for less than 5 minutes on 95 per cent of occasions when queueing was sampled. BAA told us that the airlines at Stansted wished to continue with the 10-minute standard.

<sup>3</sup>This view was disputed by the airlines and our consultants.

FIGURE 4

**Stansted man-years**



Source: BAA.

30. The productivity trends at Stansted projected by BAA in May 2008 are shown in Table 5. This shows a decline in productivity at Stansted over 2007/08 and 2008/09, followed by rising productivity over Q5. The CAA's analysis of the effect on productivity trends, by adjusting them to remove the effect of volume growth is set out in Annex 2.

TABLE 5 Stansted productivity in Q4 and Q5, actual and forecast by BAA

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Passengers (million)	19.4	21.2	22.2	23.8	23.5	22.7	23.5	24.7	26.6	28.5	31.0
<i>Total staff</i>											
Man-years	972	996	1,044	1,144	1,308	1,384	1,390	1,415	1,448	1,485	1,509
Passengers per man-year ('000)	20.0	21.2	21.3	20.9	18.0	16.4	16.9	17.5	18.4	19.2	20.5
<i>Security staff</i>											
Man-years	475	492	535	619	781	[X]	[X]	[X]	[X]	[X]	[X]
Passengers per man-year ('000)	40.9	43.1	41.6	38.5	30.1	[X]	[X]	[X]	[X]	[X]	[X]
<i>Other staff</i>											
Man-years	497	505	509	525	527	[X]	[X]	[X]	[X]	[X]	[X]
Passengers per man-year ('000)	39.0	41.9	43.7	45.5	44.7	[X]	[X]	[X]	[X]	[X]	[X]

Source: CC analysis of data from BAA.

Note: Subject to rounding differences.

## *Efficiency reviews*

31. BAA told us about a set of change initiatives referred to as Delivering Excellence Experience (referred to at Stansted as ISE), which seek to devolve decisions closer to where services are actually provided. BAA said that seven levels of management had been reduced to four, and that accountability for security staff had been simplified. The combined effect of these programmes at Stansted was expected to be a reduction of 83 FTE staff. BAA told us that ISE would lead to cumulative staff savings of 67 man-years at Stansted by the end of March 2009. BAA told us that support services such as finance, IT, human relations and engineering services had similar initiatives. A subsequent initiative, Project Orange, had benchmarked the efficiency of BAA's IT services against those in comparable companies.
32. BAA told us that it had also carried out internal benchmarking, for example comparing passenger flows in terminals and monthly profitability information across the organization. However, it could not distribute much information on the effectiveness of security arrangements as this could provide useful information to terrorists.
33. In 2006, after its acquisition by Ferrovial, BAA had asked McKinsey to review efficiency. Its report had identified scope for simplification and further staff reductions of between 450 and 1,200 across the whole of BAA (see paragraph 106). BAA told us in 2006 that its new management intended to achieve a step change in its financial and operational performance.
34. Most of its head office staff would be moving from Central London into one building at Heathrow in 2009. This would improve communications and achieve savings in the costs recharged to the airports.
35. At the end of 2006, BAA commissioned a number of studies into the scope for performance improvements. It told us that these had led to its 'simplification' change programme, which it expected to generate significant headcount reductions. The impact of this change programme had been included in its financial projections for Stansted. The projections also included some efficiency savings for which there were no specific plans. These were referred to as 'unallocated stretch' and reflected intended opex savings that had yet to be identified. The various efficiency studies, including the McKinsey study, would thus contribute towards achieving the 'stretch' savings.
36. The efficiency of Stansted's operating processes has been examined in detail by Booz.<sup>1</sup> The CAA commissioned Booz to examine process efficiency at the three London airports in 2006 and we commissioned it to update its work on Stansted. The main conclusions of the Booz reports for the CAA and us are set out in Annex 3.

## *Staff rostering*

37. The major criticisms in the Booz 2006 process benchmarking report were of the quality of BAA's rostering, its lack of flexibility and of the adverse effect that this had on BAA's efficiency. BAA told us that it had now implemented rostering improvements. A new rostering system had replaced the previous system, which was too specific and in some cases had resulted in almost individual rostering patterns. BAA considered that the introduction of the new rostering system had depended on

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<sup>1</sup>Formerly Booz Allen Hamilton.

maintaining a constructive relationship with its trade unions, through which it had avoided substantial industrial relations risks.

38. In response to the Booz criticisms, BAA told us that staff flexibility was reduced by practical constraints. For example, it was not possible to hire staff for 2 hours at a time because it would take most of that time for them to get through security and many staff had to travel from London. For these reasons, BAA considered 4 hours to be the minimum practical shift length.
39. BAA said that matching rosters to demand was difficult as passenger flows could change quickly. Furthermore, the forecasts of passenger flows supplied by airlines could be incorrect, sometimes by 30 per cent. The new security situation following 10 August 2006 had required it to recruit a substantial number of new people at Stansted (see paragraph 6). This had had the advantage of allowing it to review and, where appropriate, revise rostering practices to meet the more challenging security environment and improve the reliability of its standards to meet airline requirements throughout the operating day.<sup>2</sup>
40. After it updated its study of the central security process for us, Booz told us that, although it had noted some process improvements at Stansted compared with the findings of its original study for the CAA, there was still significant scope for efficiency improvements. In particular, Booz considered that there was scope for a 10 per cent improvement in the efficiency of the central search process, which could be achieved over a period of five years. Booz also commented on the high level of absenteeism at Stansted among security staff, which was significantly above national averages. All three BAA London airports had high levels of absenteeism, with Heathrow being worst affected and Stansted having levels similar to Gatwick. We investigated further and found that airports generally had high levels of absenteeism, particularly among security staff, but the levels of absenteeism at the three BAA London airports were higher than those reported for any of the other airports that provided us with data. Booz found that there was also scope for a 7.5 per cent improvement in the efficiency of trolley management. Booz considered that the maintenance of passenger-sensitive equipment (PSE) showed medium scope for improvement. Airside and perimeter security offered low to medium scope for improvement. Booz felt that the management of check-in infrastructure, baggage systems and services for PRMs showed only low scope for improvement.

## **Police**

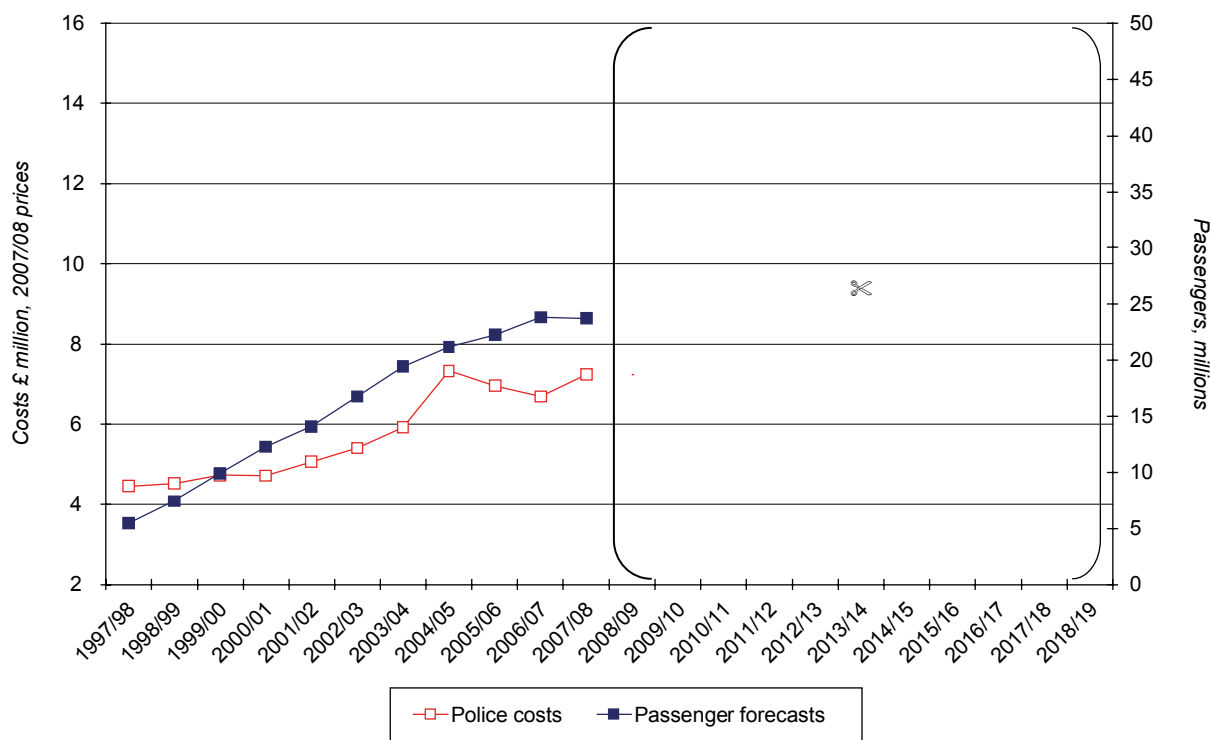
41. Figure 5 compares the expenditure on policing that BAA projected for Stansted in May 2008 with historic expenditure.

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<sup>2</sup>This view was disputed by the airlines and our consultants.

FIGURE 5

**Stansted police costs**



Source: BAA.

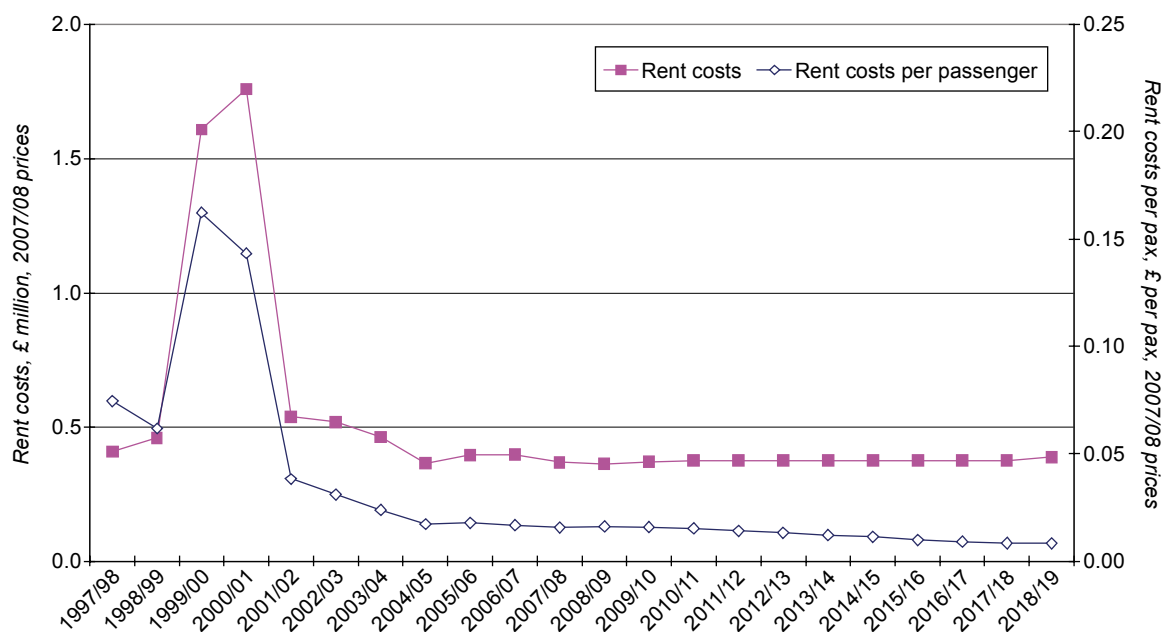
42. BAA told us that the increased terrorist threat after 2001 and the extension of the terminal had led to increased police patrols from 2002 onwards. At Stansted, negotiations with the police took place annually. BAA forecast that police costs in Q5 and Q6 would average about 14 per cent of Stansted’s staff costs. The second terminal and second runway were forecast to lead to increased policing requirements from 2014/15. BAA subsequently increased its forecasts to include the cost of a new Police Service Agreement (PSA) with Essex Police.

**Rent**

43. Figure 6 compares the expenditure on rent that BAA projected for Stansted in May 2008 with historic expenditure. Rent costs are typically around 4 per cent of property revenue.

FIGURE 6

**Stansted rent cost**



Source: BAA.

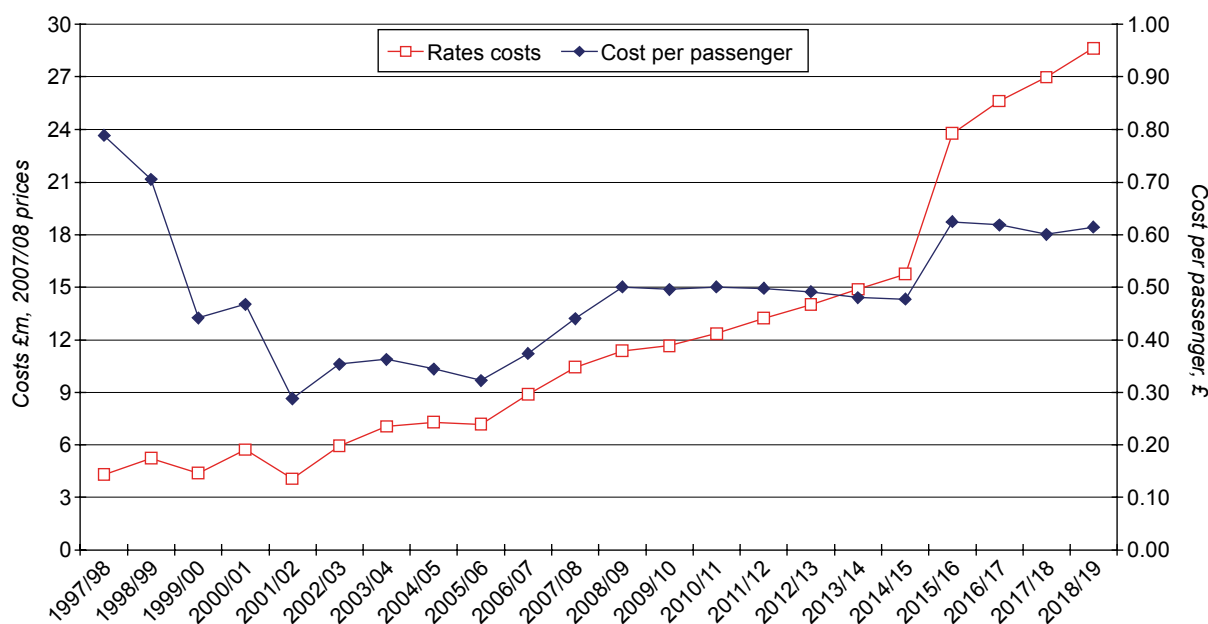
44. BAA told us that rent costs mainly covered the cost of staff accommodation. The peak in rent costs at Stansted in 1999/2000 and 2000/01 related to rents for Endeavour House, which was subsequently transferred to BAA’s property company. Therefore, from 2001/02 to 2004/05, these rents were incurred as an inter-company charge and included in central costs. From 2004/05, Stansted airport ceased occupying Endeavour House and no longer incurred this charge. The small remaining item included under rent is a charge for services operated by Harrods Aviation Ltd on the north side of the airport.

**Rates**

45. Figure 7 compares the expenditure on business rates that BAA projected for Stansted in May 2008 with historic expenditure.

FIGURE 7

**Stansted rates**



Source: BAA.

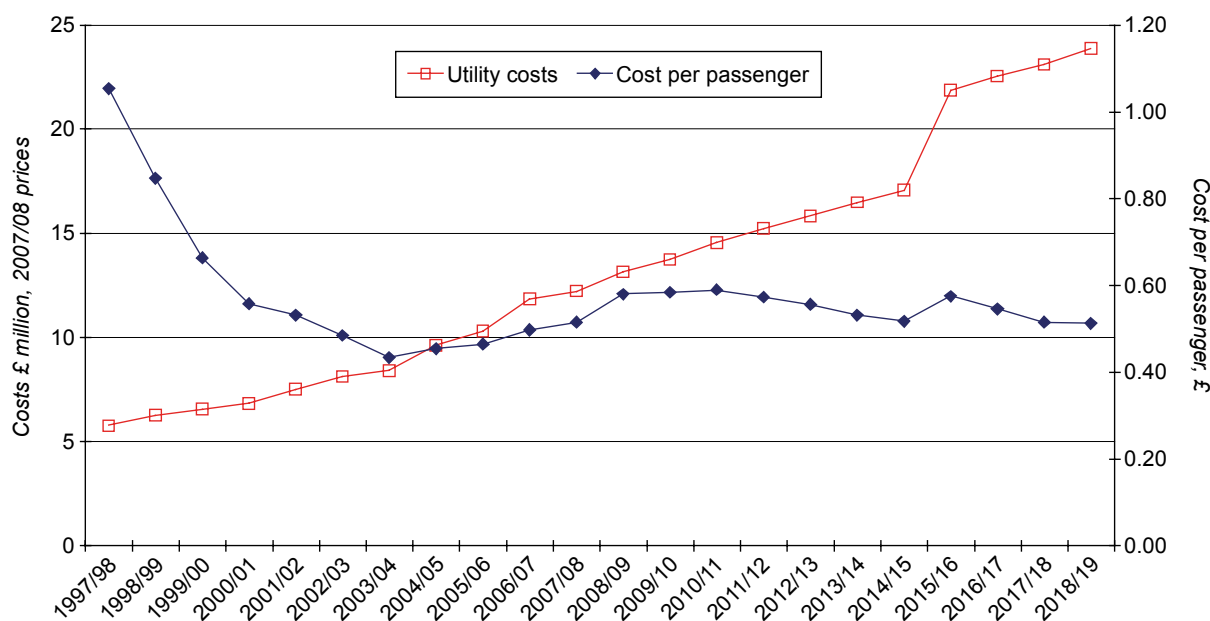
46. BAA told us that the airport’s rateable value (RV) was calculated by the Valuation Office Agency on the ‘contractor’s basis’ of valuation, where RV represents the hypothetical rent the property would attract, were it vacant and to be let on the open market. This method decapitalized the depreciated replacement cost of land and buildings to produce an annual equivalent rental value, which was set as the RV. BAA added that central government had currently determined that a decapitalization rate of 5 per cent should be used. The rate poundage to be applied to the RV was also set by central government, currently at 44.4p per £1 of decapitalized RV.
47. To forecast future rates, BAA told us that it had projected the replacement cost of its land and buildings forward in line with forecast capex and assumed that the decapitalization rate and the rate poundage would remain constant. BAA commented that business rates were difficult to forecast because they were subject to political and legislative changes. As local government expenditure was increasing faster than general inflation, there was scope for rates to increase more rapidly than it had forecast. Rates were forecast to remain relatively stable over Q5 with a sharp rise in 2015/16 when the second terminal was projected to become liable to rates. We commissioned Atisreal to review BAA’s forecasts of rates in detail.

**Utility costs**

48. Figure 8 compares the expenditure on utility costs that BAA projected for Stansted in May 2008 with historic expenditure.

FIGURE 8

**Stansted utility costs**



Source: BAA.

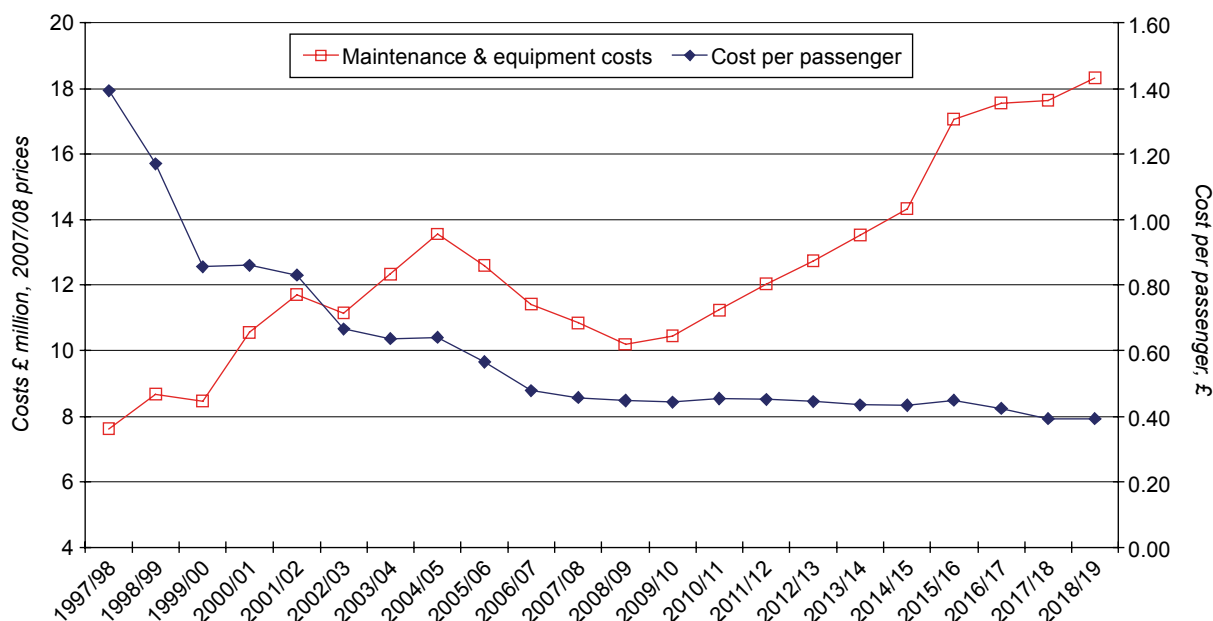
49. BAA said that its energy consumption was driven by capex, rather than passenger numbers. Electricity demand at Stansted was projected to increase as various developments came into use. BAA said that water costs at Stansted depended on airport activity, rather than new development.
50. Utility costs per passenger declined at the end of the 1990s as a result of passenger numbers increasing faster than terminal space and increased competition in the energy sector. BAA told us that Stansted had obtained lower prices from 1997 after combining its buying power with Heathrow. From 2000/01 BAA purchased electricity at group level. However, in 2001/02, prices increased following the introduction of the climate change levy, which added about 16 per cent to gas and electricity costs. The higher costs from 2002/03 were partly caused by increased consumption after the completion of the terminal extension and Satellite 3. From 2004/05, energy costs had risen owing to increasing market prices. BAA said that it had initiated a mid-term review of its firm gas contract in return for an extension of the contract to 2010. This would enable it to take advantage of lower unit rates in 2008/09 and 2009/10. In the longer term, it expected gas and electricity out-turn prices to increase by 1 per cent a year. The opening of the second terminal would lead to a projected increase in 2015/16. BAA forecast that water and sewerage unit costs would increase by 5 per cent a year and that volumes would increase in proportion to passenger growth.
51. We commissioned IPA to review BAA’s projections of Stansted’s utility costs in detail.

**Maintenance and equipment**

52. Figure 9 compares the expenditure on maintenance and equipment that BAA projected for Stansted in May 2008 with historic expenditure.

FIGURE 9

**Stansted maintenance and equipment**



Source: BAA.

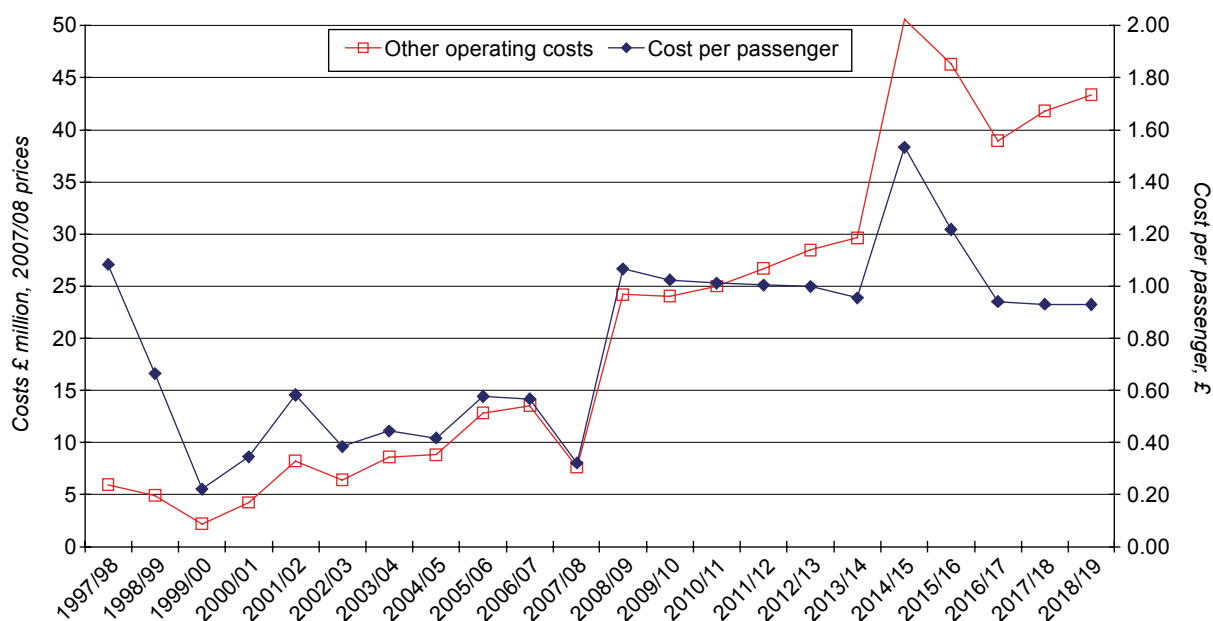
53. BAA told us that maintenance and equipment costs included the cost of maintaining PSE and baggage systems, vehicle supplies and repairs, and general engineering equipment and supplies costs. The cost of maintaining baggage systems was re-chargable to the airlines.
54. Maintenance and equipment costs at Stansted were largely driven by the capital programme. The equipment cost increase in 2000 was associated with higher usage of Stansted’s fuel facilities by taxi and car rental companies and was recharged to them. These costs fell in 2006/07 and 2007/08 as a result of third-party fuel sales being outsourced.
55. Cleaning and maintenance costs increased by about £2 million in 2007/08 as part of BAA’s ‘fix the basics’ programme to raise standards. From 2008/09, the additional ongoing maintenance costs associated with the ‘fix the basics’ programme were included with cleaning costs within ‘other’ costs.
56. BAA told us that the forecast increase in maintenance costs was attributable to the opening of further facilities, the ageing of the terminal and associated assets and increased usage as passenger numbers grew.

**Other operating costs**

57. Figure 10 compares the expenditure on ‘other’ operating costs that BAA projected for Stansted in May 2008 with historic expenditure.

FIGURE 10

**Stansted 'other' operating costs**



Source: BAA.

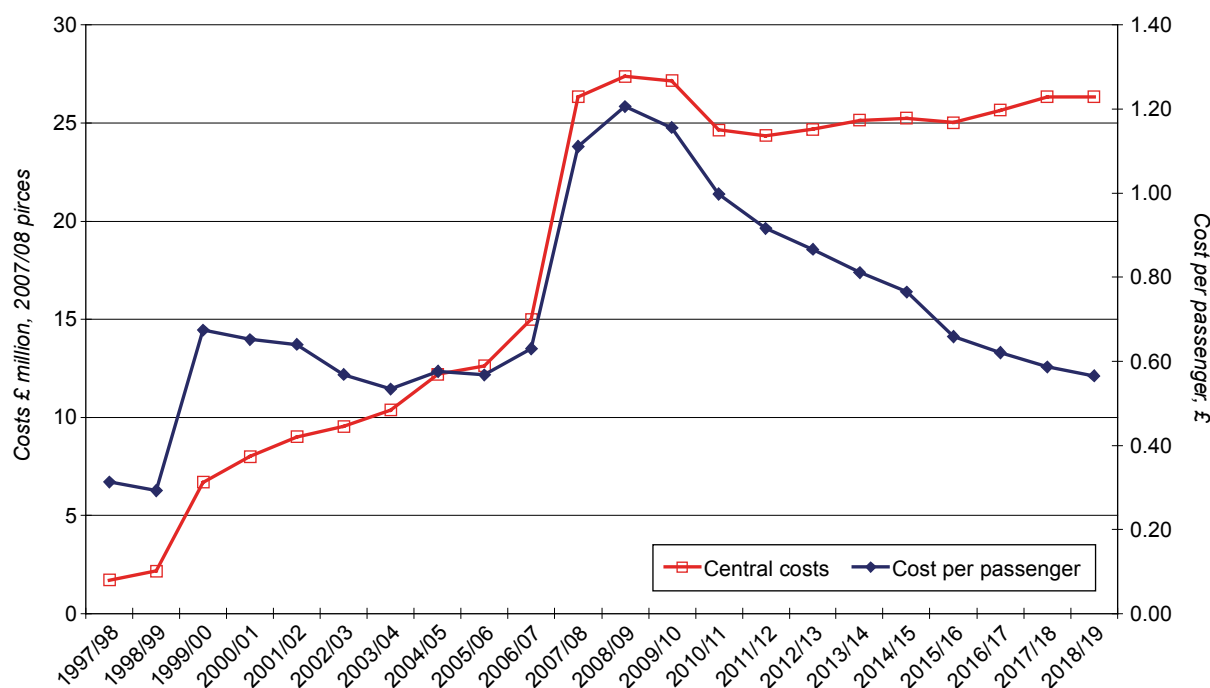
58. 'Other' costs include insurance, cleaning, marketing, ground transport, general expenses and capitalization of revenue costs. BAA told us that the increase in 2001/02 was caused by higher insurance costs following the events of 11 September 2001. At the same time, BAA had increased marketing support to low-cost airlines. Costs for 2005/06 and 2006/07 both included exceptional costs associated with change programmes. The rise in 2008/09 included around £13 million to cover the increased scope of Stansted's opex caused by the inclusion of both PRM costs and ANS charges for the first time. The projected increases in 2014/15 and 2015/16 relate to opening costs over two years for the second terminal and associated facilities, assumed to cost £30 million.

**Central (intercompany) costs**

59. Figure 11 compares the expenditure on central costs projected by BAA in May 2008 for Stansted with historic expenditure.

FIGURE 11

**Stansted central costs**



Source: BAA.

60. BAA said that central costs paid for central support services and corporate head office costs. Central support services covered IT, retail operations, supply chain management and project support. Corporate head office costs included finance, human resources and legal services. Allocated corporate costs accounted for about 75 per cent of central costs at Stansted in BAA's forecast. IT services consisted mainly of staff costs and asset charges and represented about half of Stansted's central costs.
61. Central costs had increased in 1999/2000 following the transfer of IT, retail and project construction team costs from airports to central departments. The introduction of new IT systems had increased costs from 2000/01. As Stansted moved into profitability, BAA's allocation methodology resulted in it receiving an increased share of central costs. BAA told us that the increases in 2007/08 reflected all corporate office costs and shared service centre costs being allocated to the airports (previously certain costs associated with being a plc, such as company secretarial costs, had been retained at corporate office) and the removal of the corporate allocation 'cap' that had previously been applied to Stansted.
62. The CAA considered that an adjustment to the baseline central costs might be appropriate to eliminate the impact of 'mark-ups' on certain central costs, to eliminate the re-allocation of certain costs from the non-regulated businesses to the three regulated airports, and to exclude costs associated with management incentive schemes.

**The CAA's preliminary projections of BAA's required opex for Q5**

63. The CAA's approach to estimating BAA's future opex requirements is set out in detail in Chapters 10 to 12 of its 2006 initial proposals for Heathrow, Gatwick and Stansted and Chapter 8 and Annex E of its 2008 Stansted reference to us. In summary, the

CAA told us that its assessment of BAA's opex for Q5 had rested on three strands of work:

- efficiency studies by independent consultants that examined various elements of BAA's cost base;
- a top-down assessment by the CAA of high level trends in opex and productivity indicators; and
- a bottom-up review by the CAA of a number of additional operating cost items at a disaggregated level.

### ***The consultants' efficiency studies commissioned by the CAA***

64. We describe the consultants' efficiency studies commissioned by the CAA in 2006 in Annex 3. The Booz 2006 *Process Benchmarking and Other Analysis of the Efficiency with which the BAA London Airports Incur Operating Expenditure* report identified some potential for efficiency and/or effectiveness improvement for all the processes examined. For example, concerning security staff, which forms the largest group of staff in BAA, Booz suggested that across the BAA London area airports there could be productivity improvements of between 5 and 12 per cent in passenger screening at central search, mainly through greater flexibility in rostering and reduced absence levels.
65. Booz's 2006 report concluded that Stansted had performed reasonably well on the management of PRM services and the management of its baggage systems but relatively poorly on central search and the management of PSE. Booz specifically noted problems with rostering of security staff in central search. However, it did find that Stansted demonstrated very good practices in the organization and management of its passenger services function, under which, for example, staff could work either on trolley management or on PRM assistance depending on demand at different times. We discuss Booz's conclusions following its update of this work for us in Annex 3.
66. The IDS 2006 study found that certain staff were paid above the median rate for similar jobs in the same region; that sickness absence rates were well above the national average; that staff turnover was below the national average; and that BAA's pension scheme was unusually generous.
67. IDS found that security staff pay rates at Stansted were at the higher end of the market, whichever measure it applied. We discuss IDS's conclusions following its update of this work for us in Annex 1.
68. KPMG's reviews of finance, facilities management and IT services were less critical of BAA but still found some scope for efficiency savings across its London airports of between zero and 6 per cent in the finance function and between 1 and 7 per cent in facilities management. This work was not updated as part of our review.
69. With regard to facilities management, KPMG found that Stansted's overall space utilization per staff full-time equivalent was excellent, being 36 per cent better than KPMG's benchmark. This work was not updated as part of our review.
70. After reviewing the results of these studies, the CAA concluded that it was reasonable to assume that BAA had some scope to improve its operating efficiency. It felt that the studies indicated that there was potential for continued incremental improvements rather than a step change in BAA's efficiency. The CAA noted that not all of

the studies had quantified the scale of efficiency improvement that could be achieved and those that had suggested a wide range. Therefore, it concluded that it needed to exercise caution in setting any targets for opex (see paragraph 85).

### ***How the CAA developed its projections***

71. The methodology described below relates to the CAA's preliminary cost estimates for its 'augmented building block' approach to setting price caps.
72. The CAA told us that it had used the same three-step process to estimate the level of opex needed by Stansted in Q5 as had been applied in its 2008 price determination for Heathrow and Gatwick. These three steps were:
  - *Step 1*: establishing a baseline level of opex after removing atypical and one-off costs and costs that needed to be analysed separately;
  - *Step 2*: rolling forward the baseline opex by taking account of growth and expected efficiency savings; and
  - *Step 3*: adjusting the resulting projections to allow for any expected atypical and one-off costs and costs that it had analysed separately.

#### ***Step 1: Establishing a baseline level of opex***

73. The CAA took 2006/07 as the base year for its preliminary analysis as this was the latest year for which actual cost data was available at the time. It examined BAA's costs in this year in relation to long-term trends and BAA's forecasts and identified any costs that either appeared to be atypical, one-off costs or needed to be analysed separately. It then removed these items from the 2006/07 cost data to establish a baseline level of opex. The exceptional items and costs that the CAA removed from the baseline included:
  - security costs, which had been affected by changing requirements and had increased significantly in 2006/07;
  - pensions costs;
  - utility costs, particularly energy costs which had been affected by volatility in the relevant markets; and
  - rates, which the CAA had considered to be largely uncontrollable and therefore required separate analysis.
74. In its Heathrow and Gatwick review, the CAA excluded exceptional items from the baseline, including redundancy costs, on the basis that such items would not be expected to recur. Although the CAA had not excluded such items in its preliminary estimate of the 2006/07 baseline for Stansted, it said that 'other costs' included £3.6 million relating to exceptional items in 2006/07 and that it would expect such costs to be excluded from our baseline, if it were to be based on opex in 2006/07.
75. The CAA also made a preliminary adjustment to central costs at this stage to remove the mark-up on certain central costs and to take account of the effect of removing various caps imposed by BAA. Table 6 shows the derivation of the CAA's baseline costs from long-term trend costs and Stansted's actual costs in 2006/07.

TABLE 6 Derivation of CAA baseline opex at Stansted

*£ million, 2007/08 prices*

<i>Category of opex</i>	<i>Trend cost, 1997/98 to 2006/07 (adjusted for passenger numbers)*</i>	<i>BAA actual costs in 2006/07</i>	<i>% difference between long-term average and 2006/07 per passenger</i>	<i>CAA baseline cost</i>	<i>Comment</i>
Security-related staff	17.4	22.3	28.4	Excluded	Analysed separately
Non-security staff†	<u>43.3</u>	<u>29.7</u>	-31.3	<u>25.4</u>	Actual less pensions
Total staff	60.7	52.1	-14.2	25.4	
Constabulary	10.0	6.7	-33.3	6.7	Actual
Rent	1.4	0.4	-71.6	0.4	Actual
Rates	10.6	8.9	-16.0	Excluded	Analysed separately
Utility	14.3	11.8	-16.9	Excluded	Analysed separately
Maintenance & equipment	19.3	11.4	-40.8	11.4	Actual
Other operating	12.6	13.5	7.2	13.5	Actual
Central costs	<u>13.0</u>	<u>15.0</u>	15.6	<u>21.0</u>	CAA adjustment
Total	141.8	119.8	-15.5	78.4	

Source: CC analysis of data from the CAA.

\*Average real costs per passenger from 1997/98 to 2006/07 multiplied by the number of passengers in 2006/07.

†Trend distorted by pensions holiday.

Note: Subject to rounding differences.

76. Unlike its analysis for Heathrow and Gatwick for Q5, the CAA's analysis for Stansted in Q5 did not need to reduce actual baseline unit costs to bring them into line with trend costs. Rapidly increasing passenger numbers had resulted in 2006/07 opex already being below trend costs in real terms for all items except security, 'other' opex and central costs. The CAA excluded security and central costs from the baseline and analysed them separately.
77. The CAA considered that future utility costs were uncertain and that rates were a largely uncontrollable cost and that both should be removed from the baseline and treated separately.
78. The CAA observed that police costs, rent and maintenance and equipment costs in 2006/07 were lower than trend levels. It used the actual 2006/07 costs in its baseline.
79. In 2006 the CAA asked LECG to review BAA's central costs and BAA's approach to allocating costs to its subsidiaries. LECG's report raised concerns about the objectivity of BAA's approach, including the capping of costs allocated to certain of its businesses, including non-regulated airports, and the non-allocation of certain costs to the airports. BAA altered the basis of recharging costs in its May 2008 forecast for Stansted and ceased to cap Stansted's costs with effect from 2007/08, but continued to cap the central costs on its non-regulated airports. Therefore, the CAA adjusted its allowed costs to remove the effect of the capping adjustments in the baseline year of 2006/07.
80. LECG's analysis also identified a cost mark-up of 7.5 per cent that BAA added to certain of the corporate costs that were allocated to the airports. This mark-up was intended to provide a financial return to the corporate centre on the basis that a third-party supplier of these services would be expected to make a profit. LECG did not reach a firm recommendation on this item but pointed out that regulatory precedent in other industries was against allowing for such mark-ups. The CAA excluded this mark-up in its Heathrow and Gatwick determinations, as it considered that it duplicated the allowance for the cost of capital in the CAA's projections. In its reference to us, the CAA made a preliminary adjustment to central costs on a similar basis to exclude the mark-up for Stansted.

81. Although LECG also examined BAA's method of allocating IT costs and the cost drivers that BAA used to allocate other costs between its businesses, this analysis found that the cost allocations were materially satisfactory and it did not lead to any further cost adjustments by the CAA.

### *Step 2: Adjusting for growth and efficiency changes*

82. The CAA then estimated the projected opex needed by BAA by adjusting its baseline opex to reflect the scope for efficiency improvements and the effect of future growth in passenger volume in future years.
83. It examined productivity trends at Stansted; the results of its analysis are set out in Annex 2. For illustrative purposes, the CAA examined the effect of adjusting BAA's projected productivity to allow for an estimate of the elasticity of staff numbers to passenger numbers. After adjusting for an assumed staff to passenger elasticity of 0.3 (see paragraph 84), the CAA noted that BAA's projections showed that Stansted's adjusted annual productivity growth would be minus 1.4 per cent in Q5. This compared with minus 1.6 per cent at Heathrow and minus 3.6 per cent at Gatwick. However, the CAA commented that this analysis was sensitive to the assumed elasticity level and was distorted by changes in security requirements in recent years.
84. In 2002, we estimated that the elasticity of the costs of BAA's London airports with respect to passenger traffic levels was between 0.3 and 0.4. A similar approach had been used by Manchester Airport to adjust its costs for the effect of growth. To estimate the effect of growth in passenger numbers on opex, the CAA used the lower end of our elasticity range and allowed for additional opex equal to the cost baseline multiplied by 30 per cent of the CAA's forecast percentage traffic growth since 2006/07.
85. The CAA suggested that, taken together, the results from its consultancy studies suggested that it was reasonable to assume that BAA had some scope to improve efficiency at Stansted. Overall, the CAA's preliminary view was that, as at Heathrow and Gatwick, the studies indicated scope for continued incremental improvement rather than a step change in BAA's operating cost efficiency. Leaving aside security staff, the CAA felt that productivity analysis suggested that Stansted had performed well in Q3, despite it being a period of significant passenger growth. In Q4, productivity growth at Stansted had been greater than at Heathrow but lower than at Gatwick, although projected performance for Q5 lagged somewhat behind Heathrow and Gatwick.
86. In using the studies and other evidence to determine the scope for improved efficiency at Heathrow and Gatwick, the CAA noted that we had applied a 1.5 per cent a year efficiency adjustment to the baseline level of opex and to other elements of operating costs, including security costs. While it felt that further analysis might be required before determining an appropriate efficiency factor for Stansted, in its reference to us, the CAA used 1.5 per cent a year as an indicative efficiency factor. This adjustment was applied to projected baseline costs with effect from 2006/07. The CAA invited us to review this analysis in more detail.

### *Step 3: Other adjustments*

87. In its third step, the CAA added in any additional costs that had been the subject of more detailed review and atypical costs that it expected BAA to incur. These costs

included security, utility costs, rates, ANS costs, pension costs and inter-company charges, which had been excluded from the cost baseline.

88. Security costs were treated as a special case. The CAA's indicative projections allowed for BAA's projections of security staff costs for the first year of Q5 and then applied an efficiency adjustment of 1.5 per cent a year to the cost in subsequent years. The CAA also invited us to consider the relationship between security costs and service quality further.
89. The amount the CAA allowed for pension costs is considered in Appendix J.

### *The resulting projections*

90. After making these adjustments, the CAA produced overall cost projections for Stansted in Q5 that were around £45 million lower (in 2007/08 prices) than BAA's March 2008 projections (its most recent projections at that time). Most of this change was the result of the CAA rejecting BAA's assumption that staff costs would increase by [ ] and the increase in BAA's forecast of central costs from the 2006/07 level.
91. Table 7 shows the opex allowance for Stansted projected by the CAA.

TABLE 7 Opex allowance for Stansted projected by the CAA in April 2008

	<i>£ million, 2007/08 prices</i>						
	2009/10	2010/11	2011/12	2012/13	2013/14	Average Q5	Total Q5
Baseline opex*	74.9	73.8	72.7	71.6	70.5	72.7	363.6
Adjustment for volume growth	0.8	2.3	4.1	5.7	7.6	4.1	20.6
<i>Items not included in the baseline</i>							
Security staff (excl pensions)	24.6	24.3	23.9	23.5	23.2	23.9	119.5
Pensions	6.1	5.8	5.5	5.3	5.0	5.5	27.6
Utility costs	13.7	14.6	15.2	15.8	16.5	15.2	75.8
Business rates	11.7	12.4	13.2	14.0	14.9	13.2	66.2
ANS	12.4	12.9	13.4	13.8	13.8	13.3	66.3
Central costs	2.3	2.3	2.2	2.1	2.1	2.2	11.0
Total CAA opex allowance	146.6	148.3	150.3	151.9	153.5	150.1	750.6

Source: CAA.

\*2006/07 baseline opex less 1.5 per cent a year efficiency savings from 2006/07.

Note: Subject to rounding differences.

### *Subsequent changes*

92. After the CAA had submitted its projections to us, BAA made minor adjustments to its opex projections for Stansted, which did not materially affect the CAA's analysis (see paragraph 12).
93. The CAA told us that its projections for security costs, utility costs, rates and certain other areas were preliminary and invited us to examine these areas in more detail in the light of further consultants' studies that we intended to commission.

### *BAA's comments on the CAA's preliminary opex projections*

94. BAA told us that it broadly supported the findings of the CAA's consultants' studies into its opex. However, it did not accept the CAA's interpretation of the consultants'

reports. BAA considered that the CAA's broad methodology was reasonable but considered that it could only lead to a fair result if all the appropriate costs were recognized. It would prefer us to base our evaluation on a line-by-line assessment of BAA's bottom-up forecasts and the underlying cost drivers and assumptions. It felt that the CAA had not taken account of many of the cost increases it faced and the efficiency improvements already built into BAA's business plan.

95. If the CAA's methodology were to be used, BAA considered that the CAA's assessment that there was scope for a 1.5 per cent a year reduction in opex per passenger was based on a subjective assessment of the results of the consultants' studies rather than an assessment of the underlying costs. As BAA expected [§] the CAA's 1.5 per cent a year real efficiency adjustment had a greater effect than this headline figure suggested. BAA did not consider that the CAA had taken account of the higher opex which BAA had forecast for Q5, including justifiable cost increases for areas such as actual police costs, the costs of PRM services and increases in cleaning costs as a result of BAA's 'fix the basics' programme.
96. BAA accepted many of the findings of the Booz 2006 process benchmarking study but considered that many of them were already being dealt with as part of BAA's change programmes. The ongoing improvements since 2005, which included improved rostering, were already built into BAA's projections and, therefore, the CAA may have double counted the resulting savings. BAA considered that several of the CAA's consultants had shown that BAA's performance was well above the median and, furthermore, it was unreasonable to expect any company to be at the efficiency frontier in all its operations.
97. BAA considered that the efficiency improvements suggested by Booz might be achievable in an ideal world. However, it thought that Booz had underestimated the constraints faced by BAA. BAA considered that the 2006 consultants' studies had failed to take account of:
  - new security requirements and the rationale for airport security processes;
  - change programmes already in progress; and
  - the importance of third parties in enabling change.
98. It also felt that the 2006 consultants' studies had failed to provide a link to costs and lacked transparency in explaining their results. Therefore, it considered that the studies were of limited value as the basis for a cost determination.
99. If the CAA volume adjustment were to be used, BAA considered that the volume elasticity should be updated to take account of changes in BAA's cost base, including new security requirements.
100. BAA attempted a detailed reconciliation of the CAA's cost allowances and BAA's latest projections. It identified a list of items that it felt should be treated as additional 'one-off' adjustments under the CAA's approach. BAA asked for the following additional items to be considered at Stansted:
  - additional police costs based on the new PSA for 2008/09;
  - the costs of the airport becoming responsible for PRM services with effect from 1 July 2008;
  - additional ongoing cleaning costs associated with the 'fix the basics' programme;

- changes to the central costs;
- additional security costs; and
- a reduction to ANS costs due to the reduction in projected passenger numbers.

### Comparison with BAA's projections

101. Table 8 shows the CAA's projected allowance for opex at Stansted adjusted to show a breakdown into the cost categories used in BAA's own projections. (Because of the different approaches, there is no equivalent of the CAA's volume adjustment in BAA's projections.) Table 9 shows the difference between the BAA and CAA projections.

TABLE 8 CAA April 2008 projections for Stansted adjusted according to BAA cost items

*£ million, 2007/08 prices*

	2009/10	2010/11	2011/12	2012/13	2013/14	Q5 average	Q5 total
Total staff costs (including pensions)	55.0	54.0	52.9	52.0	51.0	53.0	265.0
Constabulary costs	6.4	6.3	6.2	6.1	6.0	6.2	31.0
Rent	0.4	0.4	0.4	0.4	0.4	0.4	1.8
Rates	11.7	12.4	13.2	14.0	14.9	13.2	66.2
Utility	13.7	14.6	15.2	15.8	16.5	15.2	75.8
Maintenance and equipment costs	10.9	10.7	10.6	10.4	10.3	10.6	52.9
Other operating costs	25.3	25.6	25.9	26.1	25.9	25.8	128.8
Central costs	22.4	22.1	21.7	21.3	21.0	21.7	108.5
Volume	0.8	2.3	4.1	5.7	7.6	4.1	20.6
CAA total	146.6	148.3	150.3	151.9	153.6	150.1	750.6

Source: CAA.

Note: Subject to rounding differences.

TABLE 9 Difference between BAA May 2008 and CAA April 2008 projections for Stansted

*£ million, 2007/2008 prices*

	Total opex in Q5			Percentage difference
	BAA projections	CAA projections	Difference	
Total staff costs including pensions	[x]	[x]	[x]	10
Constabulary costs	[x]	[x]	[x]	26
Rent costs	2	2	0	0
Rates costs	64	66	-2	-3
Utility costs	74	76	-2	-3
Maintenance & equipment costs	58	53	5	9
Other operating costs	134	129	5	4
Central costs	126	109	17	16
Volume	-	21	-21	N/A
Total	789	751	37	5

Source: CAA and BAA.

Notes:

1. Subject to rounding differences.
2. N/A = not applicable.
3. 'Other' includes ANS.

102. The comparison between the two sets of figures is not straightforward. As the CAA projections are based on BAA's March 2008 submission, the differences include both the adjustments made by the CAA in April 2008 and the minor changes made by BAA in May 2008. In addition, the CAA has made a separate volume adjustment

whereas the effect of volume is built into each individual cost item in the BAA projections.

103. The significant differences between the two sets of projections include staff costs and central costs. Although part of the difference in staff costs may be explained by the treatment of the volume adjustment in the CAA figures, the difference is also affected by the CAA's rejection of BAA's assumption that staff costs would rise by [X].
104. BAA subsequently increased its projected utility costs by £19 million over Q5, in line with recent increases in energy prices. These cost increases were already reflected in the recommendations from IPA that we used in our projections (see paragraph 129).

### **Other evidence on BAA's likely level of opex**

105. We were aware of two other pieces of evidence about BAA's likely level of opex. First, in 2006, BAA commissioned McKinsey and Company (McKinsey) to advise it on methods of improving its operating efficiency and, second, Ferrovial estimated the scope for efficiency savings in a business plan prepared in June 2006, shortly before it (and its co-investors in ADI) took control of BAA.

### ***The McKinsey review***

106. After BAA submitted its original 2006 projections to the CAA, it asked McKinsey to review its efficiency. McKinsey's report identified scope for between 450 and 1,200 staff reductions across BAA, largely at middle management levels. BAA told us that the headcount numbers for individual airports were somewhat speculative and that the McKinsey's work had been superseded by BAA's simplification programme. By June 2008, nine Stansted employees had left through the simplification process and a further ten were scheduled to leave later in the year, eight additional employees had been redeployed as part of the simplification process. An additional reduction of 7.5 FTE staff posts was also scheduled to take place as part of the ID Centre Futures programme at Stansted. BAA told us that its May 2008 projections allowed for staffing reductions of 18 FTE.

### ***The Ferrovial business plan for BAA***

107. The Ferrovial business plan for BAA was prepared before Ferrovial took control of BAA and, therefore, was based largely on published information rather than confidential BAA data. Ferrovial Aeropuertos, the group company responsible for operating Belfast City Airport and an airport in Chile, prepared the business plan. The plan showed that Ferrovial considered that BAA's opex was excessive compared with its benchmarking analysis. It proposed cost reductions, which were to be implemented over Q5 and Q6, in BAA's corporate office, salaries (including pensions), direct costs, general expenses and central costs.
108. Ferrovial intended to achieve an optimal level of opex at Stansted in 2011. It estimated that 'optimal opex' was around 16 per cent below 2005 levels. Ferrovial projected that, compared with a 2005 base year, Stansted could make savings of 15 per cent in salary costs, 25 per cent in maintenance costs, 28 per cent in police costs and 16 per cent in general expenses.

109. Table 10 shows the cost savings that Ferrovial considered achievable at Stansted.

TABLE 10 **Opex savings projected by Ferrovial in June 2006**

	<i>Passengers m</i>	<i>2005/06 actual (at 2004/05 prices)</i>		<i>2005/06 'optimal' (at 2004/05 prices)</i>		<i>Savings</i>	
		<i>Opex £m</i>	<i>Opex per passenger £</i>	<i>Opex £m</i>	<i>Opex per passenger £</i>	<i>£m</i>	<i>£ per passenger</i>
Stansted	21.2	91	4.29	77	3.61	14	0.68

Source: CC analysis of data from Ferrovial business plan.

Note: Based on 2004/05 out-turn data.

110. BAA commented that Ferrovial now thought that it was mistaken in projecting these savings, adding that Ferrovial's forecasts had in any case been superseded by successive BAA forecasts including BAA's May 2008 submission.
111. We concluded that it was not clear to what extent the savings identified by McKinsey and those projected by Ferrovial either overlapped with BAA's original intentions for the 'unallocated stretch' incorporated into its various projections or were additional to it. It seemed to us likely that some of the savings had yet to be allowed for in BAA's projections.

### **CC assessment of opex requirements for Q5**

112. In developing our opex projections, we have applied an extension of the CAA methodology described in paragraphs 63 to 91. We have paid particular attention to the several areas which the CAA asked us to examine in more depth, and given detailed consideration to BAA's proposals for changes to the CAA methodology. Table 11 shows the derivation of our opex allowance for Stansted.

TABLE 11 Derivation of CC opex allowance for Stansted (most likely case)

£ million in 2007/08 prices

	BAA figures			CC figures							Q5 Total
	2006/07	Items considered separately	2006/07 Revised baseline	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
<i>Actual opex 2006/07</i>											
Security staff	19.1	[X]	[X]			[X]	[X]	[X]	[X]	[X]	[X]
Non-security staff	25.4		[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Constabulary costs	6.7	[X]	[X]			[X]	[X]	[X]	[X]	[X]	[X]
Rent costs	0.4		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.8
Maintenance & equipment costs	11.4	-11.4	0.0		10.2	10.0	9.9	9.7	9.6	9.4	48.7
Other operating costs	8.1		8.1	7.9	7.8	7.7	7.6	7.5	7.4	7.2	37.4
Exceptional costs	3.6	-3.6	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other general expenses	1.2	-1.2	0.0		0.6	0.6	0.6	0.6	0.6	0.6	2.9
Cleaning	2.8	-2.8	0.0		4.4	4.3	4.2	4.2	4.1	4.0	20.8
Capitalization revenue	-2.2	2.2	0.0			-1.0	-1.0	-0.9	-0.9	-0.9	-4.7
Central costs	15.0	-15.0	0.0		18.7	18.4	18.1	17.9	17.6	17.3	89.4
Total volume adjustment						-0.8	0.8	2.3	4.3	6.0	12.6
<i>Costs informed by consultants' reports</i>											
Pensions	7.6	-7.6	0.0			8.0	8.1	7.8	7.2	7.2	38.3
Rates costs	8.9	-8.9	0.0			12.0	12.0	12.1	12.1	12.2	60.3
Utility cost	11.8	-11.8	0.0			17.6	17.3	17.0	16.8	16.2	84.9
<i>Items not included in 2006/07 actuals</i>											
ANS	0.0		0.0		9.5	9.7	10.2	10.8	11.5	12.1	54.3
PRM costs	0.0		0.0		1.8	1.8	1.8	1.8	1.8	1.8	8.8
Euro entry costs	0.0		0.0							0.0	0.0
Terminal departures extension	0.0		0.0					0.0	0.0	0.0	0.0
CAA	0.0		0.0							1.0	1.0
	119.8					143.6	144.2	144.2	144.9	146.3	723.3

Source: CC analysis of BAA data.

Note: Subject to rounding differences.

### **Step 1: Our analysis of baseline opex**

113. In step 1 (see paragraph 73) of our analysis, we estimated a baseline level of trend opex, based on actual opex in 2006/07, after excluding a number of items that we analysed separately. To do this, we first examined BAA's opex for our 2006/07 base year (see Annex 4).
114. Our baseline cost for each item consisted either of the 2006/07 actual cost indexed forward to 2007/08 prices or, where we considered that this was atypical of future costs, a trend value based on our analysis. For example, we allowed for recent increases in security requirements by including BAA's latest estimate of security staff costs for 2009/10 in the baseline.
115. We based our assessment of police costs on the current PSA between the airport and Essex Police.
116. Our assessment of maintenance and equipment costs and cleaning costs was based on Stansted's current contracts, together with an estimate of the continuing additional cleaning costs associated with BAA's 'fix the basics' programme.
117. We based our assessment of central costs on our estimate of the longer-term costs under each item, based on BAA's forecasts for Q5. As BAA had already allocated central costs fully to the various businesses, in line with the CAA's decision on Heathrow and Gatwick in 2008, we made no further adjustment in this respect. However, BAA had continued to charge the costs of its management incentive schemes and a mark-up on certain central costs, and to reallocate some costs from the non-designated airports to the regulated airports, including Stansted. We agreed with the CAA's view that these increases should not be passed on to Stansted and therefore we have removed them from our estimate of central costs.
118. We excluded certain atypical costs in respect of maintenance and equipment costs and other general expenses from the baseline, together with a number of items that we analysed separately at step 3. Our analysis of baseline opex, including other adjustments that we made, is described in more detail in Annex 4.

### **Step 2: Rolling forward baseline opex**

119. In step 2 of our analysis (see paragraph 82), we adjusted our opex baseline to derive an opex allowance for future years. This involved applying two adjustments: first, a volume adjustment, which increased opex to provide for forecast growth and, second, an annual adjustment that reduced opex (in real terms) to allow for improved efficiency.

#### *Adjusting to allow for future growth*

120. To estimate how opex should be adjusted to allow for future growth, we carried out an econometric analysis of operating costs at all BAA's UK airports. This analysis suggested that the short-term elasticity of opex with respect to changes in passenger numbers was 0.3, which had also been the adjustment factor used by the CAA in its interim projections. We therefore used a volume adjustment factor of 0.3 to take account of the effect of growth on baseline opex and applied this to our latest forecast of passenger numbers at Stansted (see Appendix E). Our analysis of the elasticity of opex with respect to changes in passenger numbers is described in Annex 5 to this appendix.

### *Adjusting to allow for future efficiency gains*

121. To help us estimate the scope for future efficiency gains, we commissioned two consultancy studies. First, we asked Booz to update the analysis of process efficiency that it had carried out for the CAA in 2006. Its findings are outlined in Annex 3. Booz identified scope for efficiency savings in several processes, particularly in the central passenger security screening process, where it considered that a saving of 10 per cent could be made over a five-year period. Smaller potential savings were also identified in other processes.
122. We asked IDS to update the study of employment costs that it carried out for the CAA in 2006. Its findings are outlined in Annex 1. IDS found that pay rates for jobs at Stansted were higher than various external comparators, including similar jobs in the Eastern or London regions. It also found that the pay premium for security staff at Stansted relative to other security staff in its local region was significantly higher than the equivalent premium for security staff at a number of other airports. In addition, IDS found that staff absence at Stansted was higher than various comparators and that staff turnover was low.
123. We also considered the findings of the studies of the finance, property management and information technology (IT) functions carried out by KPMG for the CAA in 2006, but we did not ask KPMG to update this work.
124. We carefully weighed up the findings from all these studies and concluded that we agreed with the CAA's interim assessment that there was scope for a 1.5 per cent real annual improvement in baseline operating efficiency.
125. The CAA told us that we could take comfort from the fact that its proposed efficiency factor was consistent with that applied in the 2008 Heathrow and Gatwick determination. It was also broadly in the range of efficiency factors used by other economic regulators when setting price caps for companies that had been subject to efficiency incentives for a similar period to that affecting BAA.

### **Step 3: Items analysed separately**

126. In step 3 of our analysis (see paragraph 87), we allowed for a number of other items that we had analysed separately. We also allowed for items of expenditure, such as ANS, that did not occur in the 2006/07 base year, but were expected to occur in Q5.
127. The costs that the CAA analysed separately included rates, utility costs, central costs and pension costs. It also added in the ANS costs,<sup>1</sup> which had not been incurred in 2006/07. We agreed broadly with the CAA's treatment of these cost items, although we have revised the treatment of several of them, mainly to take account of more up-to-date information. We also added in our estimate of the cost of PRM services,<sup>2</sup> another cost that was not incurred in 2006/07, at this stage.
128. We commissioned Atisreal to examine BAA's estimate of future business rates. Following meetings and discussions between Atisreal and BAA, BAA prepared a revised forecast of future business rate charges under the 'contractors' method of valuation, the method of valuation used for properties that are never usually let in the market, such as airports. The revised rates forecast was based on the existing

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<sup>1</sup>ANS costs were previously covered by a separate direct charge to airlines.

<sup>2</sup>Under EC Regulation 1107/2006, from 26 July 2008 PRM services became the responsibility of airports rather than being mainly the responsibility of airlines.

liability, but also assumed some additional value associated with the completion of forecast capital projects in Q5, such as the proposed departures extension and additional car park facilities. Atisreal reviewed BAA's revised forecast and concluded that the assumptions and methodology adopted were fair and reasonable and that a robust approach had been taken in reaching the revised estimated future rates' liabilities. Subsequent to Atisreal's work, BAA revised its capex programme and excluded a significant proportion of the SG1 expenditure, including items such as the proposed departures extension and the additional car parking facilities. At our request, BAA produced a revised rates forecast to reflect the reduced capex programme, which we have reviewed and included in our recommendations for Q5 opex.

129. We asked IPA to assess BAA's estimates of future utility costs, as shown in its May 2008 forecasts. IPA found that there had been significant changes in energy costs since BAA's estimates were prepared in May 2008, which BAA acknowledged. BAA prepared revised utility cost forecasts, which IPA reviewed against its own knowledge of the market and BAA's forecast capex plans, before preparing its own forecast of Stansted's utility costs for Q5. IPA's base case forecasts were higher than BAA's in the first three years of Q5 but significantly lower than BAA's in the final two years. Overall the two forecasts were very similar. The variations between the two forecasts were primarily caused by BAA having entered into gas and electricity contracts where the price was either lower (gas) or higher (electricity) than IPA's assessment of current market prices. In addition, IPA considered BAA's water price forecasts were at the high end of the possible range, based on current market prices.
130. The CAA noted the degree of specific risk associated with the achievement of a given set of forecasts. In particular, the CAA recognized that there were factors outside BAA's control, which could lead to utility costs over Q5 being higher than those forecast by IPA, principally the inherent volatility in wholesale gas and power prices. For that reason, the CAA considered that it would be prudent to incorporate projections of utility costs at the high end of the range identified by IPA. We noted the CAA's comments but considered that the IPA forecasts upon which both the electricity and gas projections were based included much of this year's price rises in commodity prices, which were above the most recent levels. Therefore, we did not believe that there was any strong reason to assume a high probability that prices would be closer to IPA's 'high' case than its 'base' case. Furthermore, BAA had locked in power prices for the first three years of the review period at prices close to IPA's forecast and it forecast an increase from this level in the later years of the period. It was IPA's view that power prices were more likely to fall than to rise from its forecast levels over this period. Therefore, we believed that assuming power costs at the high end of the range identified by IPA would be likely to overstate the power component of utility costs.
131. Following the preparation of IPA's report, BAA revised its capex programme to exclude a significant proportion of the SG1 expenditure, including the proposed departures extension. At our request, BAA produced a revised utilities forecast that reflected the reduced capex programme. IPA considered BAA's revisions and amended its forecasts accordingly. We have included IPA's amended forecasts in our recommended allowance for Q5 opex.
132. We consulted NATS about ANS costs. After comparing them with charges at other airports, we concluded that the costs included in BAA's contract with NATS were reasonable and included them in our projections.
133. We compared the cost of PRM services at Stansted with those of other airports, and concluded that BAA's contract with its supplier provided reasonable value for money

and based our cost estimates on it. Following the implementation of the new PRM contract, we received complaints from some airlines about the quality of the PRM service at Stansted. However, we have been informed that the contract had an initial three-month 'bedding-in' period, after which sanctions would be imposed for missed service standards. We were told that, when the agreed service standards were not met in the first month following the 'bedding-in' period, BAA would invoke the penalty clauses against the contractor. BAA and the PRM contractor are now working to improve performance and meet service standards, which is an approach that we understand has been agreed by the AOC.

134. Finally, we included the one-off costs associated with the Q6 regulatory review of airport charges and we adjusted certain costs to allow for revisions to Stansted's capital programme. Table 11 shows the resulting projections.

### *Sensitivity to changes in passenger forecasts*

135. We also examined the sensitivity of our opex projections to our high- and low-case passenger forecasts discussed in Appendix E. Table 12 shows the effect of these alternative projections on the opex allowance.

TABLE 12 **Sensitivity of opex allowance to changes in passenger forecasts**

	<i>£ million, 2007/08 prices</i>					
	<i>2009/10</i>	<i>2010/11</i>	<i>2011/12</i>	<i>2012/13</i>	<i>2013/14</i>	<i>Q5 total</i>
<i>CC high case</i>						
Passengers (m)	22.3	23.7	25.3	27.4	29.2	127.9
Opex allowance	144.8	145.6	146.3	147.7	149.7	734.1
<i>CC central case</i>						
Passengers (m)	21.5	22.7	23.9	25.6	27.0	120.7
Opex allowance	143.6	144.2	144.2	144.9	146.3	723.3
<i>CC low case</i>						
Passengers (m)	20.8	21.6	22.6	23.8	24.9	113.7
Opex allowance	142.6	142.5	142.2	142.1	143.1	712.6

Source: CC.

Note: Subject to rounding differences.

### *Possible cost-saving operational changes*

136. We evaluated particular suggestions for possible cost-saving operational changes suggested by the airlines. Two areas were initially proposed by airlines operating at Stansted: the provision of PRM services and the operation of the TTS. We also consulted operational experts from these airlines to see whether they had further ideas for improving operating efficiency. In particular, we asked them to consider whether any other efficient low-cost terminals provided examples of how Stansted could make economies whilst meeting the requirements of LCCs. Annex 6 describes our examination of these ideas.
137. The SACC questioned whether the airlines were being overcharged in respect of staff costs working on capital projects. They were concerned that BAA was recovering such costs both through staff costs in opex and through the capitalization of such costs in the RAB. Annex 7 sets out our review of BAA's process for the capitalization of staff costs at both the airport and group level.
138. We concluded that:

- (a) The present contract for PRM services provided these services at a cost that compared favourably with the cost at a number of other airports.
- (b) Once consequential capital costs had been taken into account, no significant savings could be made by taking the TTS out of operation and any minor savings that might be made would be outweighed by the reduction in the quality of service provided to passengers.
- (c) Although the operational experts from the airlines had many interesting ideas for improving efficiency, these mainly depended on building a new terminal. Within the context of the present building, any savings from changes in operating practices were likely to be incremental rather than radical and were best considered as part of our assessment of the overall scope for improving efficiency.
- (d) There was no evidence that BAA had 'double-counted' capitalized staff costs, whether incurred by Stansted or by the Group.

### **Summary of our assessment**

- 139. We supported the broad approach adopted by the CAA in developing its preliminary opex projections and considered that it should be used in determining the amount to be allowed for opex in airport charges at Stansted. Stansted's airline customers require that costs should be kept as low as is consistent with providing a good service to airlines and passengers and, therefore, it is appropriate that BAA should be set challenging opex targets at Stansted for Q5.
- 140. We have built on the CAA's methodology in developing our own analysis of the level of opex that needs to be provided for in airport charges. Our approach is set out in detail in paragraphs 112 to 138. Like the CAA, we have estimated a baseline level of trend opex, after excluding a number of items that we have analysed separately. We have then rolled forward this baseline to derive an opex allowance for future years by increasing it to provide for forecast growth and reducing it (in real terms) by an annual adjustment for improved efficiency. We have then allowed for a number of additional items that we have analysed separately. In carrying out our analysis, we have paid particular attention to several areas that the CAA asked us to examine in more depth.
- 141. In particular, we have thoroughly examined baseline opex, engaged consultants to help us determine the scope for improvements in efficiency and carried out a detailed review of the adjustment to allow for forecast growth. We have also evaluated particular suggestions for possible cost-saving operational changes provided by the airlines and given detailed consideration to BAA's proposals for changes to the CAA methodology.
- 142. We first developed our own full analysis of baseline opex and then considered how this should be rolled forward. A detailed analysis of the costs of all BAA's UK airports led us to conclude that the adjustment factor of 0.3 used by the CAA to allow for forecast growth is appropriate. After reviewing the results of our consultants' efficiency studies, we also agreed with the CAA's assessment that there was scope for a 1.5 per cent annual improvement in baseline operating efficiency.
- 143. The overall result of our analysis was an allowance for opex in Q5 that was somewhat lower than the projections put forward by both BAA and the CAA (see Table 11 and paragraph 10). The main reasons for this difference were lower forecast passenger numbers (see Appendix E), and the omission of the opex associated with a number of capital projects (see Section 8 of the main report).

## **Staff costs and collective bargaining**

### **Staff costs**

1. In 2006, the CAA asked IDS to carry out a study of BAA's staff costs at Heathrow, Gatwick and Stansted. We asked IDS to repeat this study for the present review, examining Stansted costs only. The following description of the work done by IDS applies to both studies. The results shown are those for the more recent study. For each major category of staff, IDS examined:
  - wage rates and other employment costs benchmarked against relevant comparator data;
  - absence and staff turnover rates and their impact on costs; and
  - the use of overtime and shift working and their effect on costs.
2. IDS used job evaluation techniques to compare jobs in similar functions across different organizations. The studies drew on comparative pay data from the Annual Survey of Hours and Earnings (ASHE), the IDS pay benchmarking database and various specialist pay surveys.
3. IDS carried out a general benchmarking analysis of the most numerous job grades; more detailed benchmarking studies of security guards and engineering technicians; benchmarking studies of labour turnover, absence rates and earnings growth; and a comparative assessment of the BAA pension scheme.

### **General benchmarking analysis**

4. In 2008, the IDS general benchmarking study found that operatives were paid at or above the upper quartile for jobs of a similar skill level within the Eastern region. This group included security staff, which is the most populous staff group within BAA. Operational support staff were paid at or below the regional median, engineering technicians at or above the upper quartile, middle managers between the median and the upper quartile, and senior managers above the upper quartile for the Eastern region (but below the upper quartile for the London region).
5. Overall, IDS found that Stansted paid above the upper quartile for the Eastern region for five positions across three job families: operatives, engineering technicians and senior management. The operatives' job family showed the widest differential with Stansted paying 10 per cent and 13 per cent respectively above the IDS upper quartile for passenger services assistants and security guards. In addition, seven BAA jobs across five job families were above the IDS median, while only three were below the median.

### **Security staff analysis**

6. In 2008, the IDS study of operatives' pay found that Stansted operatives were paid above the 90<sup>th</sup> percentile of the estimated earnings distributions for both the Eastern region and the London region.

7. IDS also compared the pay of Stansted operatives with that of 'premium' security occupations at the airport or in the locality. It found that Stansted operatives were paid 2 per cent more than assistant immigration officers and around 5.5 per cent less than police community support officers.
8. IDS finally compared the pay of operatives at Stansted with that of operatives at five large non-BAA airports.<sup>3</sup> In each case, the pay relative to the median pay of security staff in the relevant region was estimated. IDS carried out three analyses based on comparing Stansted pay with the Eastern region, the London region and the local travel-to-work area adjusted for its general earnings level. In all three analyses, Stansted's pay relative to its region was higher than the pay of each of the other airports relative to their regions. For both the Eastern and London region analyses, relative operatives' pay at Stansted was around 31 per cent higher than relative pay at the airport with the second highest relative pay.

### ***Engineering technician analysis***

9. In 2008, IDS found that mechanical and electrical engineering technicians at Stansted were paid at the upper quartile compared with other engineering staff. Electronics technicians were paid slightly below the upper quartile for engineering jobs of a similar skill level. The three maintenance technician grades examined were paid between 8 and 15 per cent above the median rate of basic pay for equivalent jobs.

### ***Staff turnover***

10. IDS found that staff turnover at Stansted in 2007 was around 59 per cent and 68 per cent of the turnover rates reported by the Chartered Institute of Personnel and Development (CIPD) and the Confederation of British Industry (CBI) respectively. A separate analysis by job family confirmed this picture for both operational and engineering staff at Stansted. Management turnover was broadly in line with the UK average and senior management turnover was significantly higher than the UK average for senior management.
11. As IDS was unable to obtain data from other airports to compare staff turnover rates, we contacted a number of other non-BAA UK airports. We were provided with information that suggested that their staff turnover was in line with the CBI and CIPD averages. Therefore, it would appear that Stansted's staff turnover is also lower than that at several non-BAA UK airports.

### ***Absence***

12. In 2008, IDS found that sickness absence rates at Stansted were higher than various comparators in the previous three years. The 2007/08 absence rate of 13.5 days per employee could be compared with UK averages for 2007 of 8.0 days and 6.7 days in surveys by the CIPD and the CBI, respectively.
13. IDS also found that the absence rate at Stansted was significantly higher than the averages for organizations of a similar size, 7.7 days and 8.3 days in the CIPD and CBI surveys respectively, and for the transport sector, 9.1 days and 5.9 days in the CIPD and CBI surveys respectively.

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<sup>3</sup>Birmingham, Luton, Manchester, Newcastle and Prestwick.

14. IDS was unable to obtain data from other non-BAA UK airports to compare staff absenteeism. We contacted a number of these airports and were provided with information which confirmed that absenteeism was higher for security staff than other airport staff. However, although security staff absenteeism was higher than the UK average at these other airports it was still lower than that at Stansted, confirming that Stansted could improve efficiency by reducing absenteeism.
15. BAA informed us that it now had put in place measures to tackle absenteeism, including mandatory back-to-work meetings following absences and instigating disciplinary action where back-to-work interviews were unsatisfactory.

### ***Pensions***

16. The IDS findings on pensions are discussed in Appendix J.

### **Trade union membership and collective bargaining**

17. BAA's front-line staff at Stansted are highly unionized. BAA recognizes three trade unions: Unite, the Public and Commercial Services Union (PCS) and Prospect. Broadly, these unions represent all staff at Stansted, other than senior managers, as follows:
  - Unite–Transport & General Workers' (T&G) section represents security and passenger services staff.
  - Unite–Amicus section represents engineers, property staff and fire fighters.
  - PCS represents security supervisors, airside staff, clerical staff and information desk staff.
  - Prospect represents fire officers and some engineering managers.
18. BAA told us that relationships had been fraught over recent years, as there had been strike ballots and protracted negotiations, even over minor matters. BAA considered that the unions had a degree of power owing to the scale and nature of their membership in BAA. It felt that it faced the threat of industrial action if agreement was not reached with the unions on pay or conditions. As this could lead to airport closures, there would be significant effects on the UK economy. BAA therefore considered that it had to weigh the benefits of potentially lower pay rates against the higher risk of industrial action.
19. Table 1 shows the overall proportions of trade union members and union membership in key functional areas.

TABLE 1 Trade union membership at Stansted at 31 March 2008

	<i>Total headcount</i>	<i>Unionized %</i>
Airfield operations	49	49
Airport management	3	33
Capital construction projects	7	14
Communications and public affairs	13	8
Engineering maintenance	91	54
Facilities management	4	25
Finance	4	0
Fire service	79	16
Health safety and environment	15	13
Human resources	11	0
Information systems	7	14
Operational planning	25	28
Operational solutions	3	0
Property	5	0
Retail	9	0
Security	1,019	63
Strategic planning	11	9
Supply chain	3	33
Terminal operations	116	50
Not classified	<u>20</u>	<u>5</u>
Grand total	1,494	53

Source: BAA.

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Note: Subject to rounding differences.

20. The great majority of trade union members at Stansted are members of the Unite–T&G section, with 89 per cent of all membership, and the Unite–Amicus section, with 6 per cent.
21. Formal pay bargaining structures exist with BAA at both national and airport levels. At national level there is a Joint National Forum (JNF), which includes representatives from all the unions and airports. The JNF negotiates pay and conditions, and develops standardized national policies. It also acts as a forum for consulting the unions about pensions and BAA’s strategy and performance. BAA told us that the Unite–T&G section had withdrawn from the JNF and maintained a position of wishing to meet BAA independently on a national basis.
22. Each airport has a local Joint Forum with a constitution decided locally.
23. BAA told us that there had been significant changes in the Unite leadership nationally and in the Unite–T&G leadership at Stansted during Q4. It said that both sections now tended to take a more traditional union approach. The local changes at Stansted had also produced what BAA described as a more ‘hard-line’ local leadership.

## The CAA's analysis of productivity trends at Stansted

1. The CAA examined labour productivity trends at BAA's London airports. It found that productivity was higher at Stansted than at either Heathrow or Gatwick. However, the CAA realized that increases in the number of passengers per man-year did not necessarily represent a more efficient operation. As passenger numbers increased, the productivity ratio tended to increase automatically as a result of a substantial proportion of posts being in fixed-overhead activities. The CAA called this the 'volume effect'.
2. Therefore, to reveal information about underlying efficiency trends at the airports, the CAA attempted to adjust the raw productivity trends to remove the volume effect. It considered that this could be done by assuming an elasticity factor that reflected the proportionate increase in staff numbers needed for any given percentage increase in passenger numbers (without any change in operating practices). The CAA noted that we had suggested in 2002 that this passenger to staff elasticity was likely to be between 0.3<sup>1</sup> and 0.4. The CAA then adjusted the annual productivity growth at each airport by applying the appropriate volume adjustment to the raw data. The CAA considered a range of elasticity assumptions from 0.3 to 0.6 before deciding to present its analysis using an assumed elasticity of 0.3. This produced the results shown in Table 1.

TABLE 1 Average annual staff productivity increases at BAA London airports after adjusting for the volume effect

Period	per cent a year		
	Q3	Q4	Q5 projected
<i>All staff</i>			
Heathrow	1.7	-3.7	-1.6
Gatwick	2.3	0.1	-3.6
Stansted	6.9	-5.2	-1.4
<i>Security staff</i>			
Heathrow	-1.1	-7.0	-4.5
Gatwick	-3.6	-2.2	-7.1
Stansted	-7.9	-9.4	-2.6
<i>Non-security staff</i>			
Heathrow	4.1	0.8	4.4
Gatwick	8.6	3.2	5.0
Stansted	18.7	1.0	0.6

Source: CAA.

Note: Subject to rounding differences.

3. The CAA noted that, based on a passenger to staff elasticity of 0.3, the analysis in Table 1 showed that Stansted's overall adjusted staff productivity growth was forecast to be -1.4 per cent a year during Q5. Adjusted productivity growth for security staff was forecast to be -2.6 per cent a year and adjusted productivity growth for non-security staff was forecast to be 0.6 per cent a year.
4. Overall forecast productivity growth in Q5 at Stansted was thus considerably worse than performance in Q3 but significantly better than performance in Q4, which was adversely affected by increased security staffing requirements. Projected productivity

<sup>1</sup>That is if the number of passengers increases by 10 per cent the number of staff would be expected to increase by 3 per cent.

growth for Q5 at Stansted was better than that at Gatwick but broadly similar to that at Heathrow.

5. There were significant differences in relative projected performance in Q5 between security staff and non-security staff. Projected adjusted productivity growth for security staff at Stansted was forecast to be better than that at Heathrow and considerably better than that at Gatwick. On the other hand, productivity growth for non-security staff at Stansted was projected to be considerably worse than that at both Heathrow and Gatwick.

## The consultants' efficiency studies commissioned by the CAA and the CC

### The Booz process benchmarking study

1. In 2006, the CAA asked Booz to carry out a benchmarking study of specific operating processes at airports, including 'bottom-up' assessments of the processes. The Booz study worked to a joint steering committee with representatives from the CAA, airlines<sup>1</sup> and the airports (including BAA airports and Manchester). The committee selected the processes to be examined, which covered about 29 per cent of the operating costs at Heathrow. The remaining costs tended to be either costs over which BAA had limited control, or processes largely covered by the CAA's other efficiency studies. All the BAA airports and a wide range of other airports were included in the benchmarking work. (The other airports took part on a confidential basis.) The processes that Booz examined were: passenger screening at central search; trolley management; airside and perimeter security; PRM services; maintenance of PSE; management of check-in infrastructure; and management of baggage systems.

### *Booz's follow-up studies for the CC*

2. We commissioned Booz to update this work both in 2007 and in 2008, taking account of current security requirements. For our 2007 Heathrow and Gatwick review, BAA supplied Booz with extensive data on the operation of the passenger security screening process at each terminal at its London airports (but no other processes). Booz analysed this data in depth, and also observed the screening process at all the Heathrow and Gatwick terminals. For the present review, Booz obtained further data on all the processes originally covered at Stansted and observed their operation. Using this information Booz carried out a bottom-up examination of BAA's efficiency and updated its benchmarking comparisons with other airports. The 2007 update thus applied to only the passenger screening process, but the 2008 update covered all the processes at Stansted.

### *Passenger screening at central search*

3. In 2006, based on its analysis of data from 2005, Booz found that, in comparison with the benchmark airports, there was substantial scope for process improvement in BAA's passenger security screening. Booz found that BAA's management of passenger screening staff rostering was substandard and lacked the flexibility to respond quickly to changes in demand or staff shortages. Booz told us that airlines had repeatedly questioned why BAA did not allocate sufficient staff to early morning peaks. To address this problem, Booz suggested that BAA needed to increase flexibility, eg by reducing shift lengths, staggering shift start and end times and annualizing hours. However, Booz recognized that increased flexibility might not reduce overall costs. Booz considered that union resistance to change and poor resource management were possible explanations for BAA's poor rostering. Booz found that other, non-BAA, airports had adjusted staffing to match peaks in demand, for example by using more part-time staff. There was also a high level of absenteeism among central search staff at the BAA terminals.

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<sup>1</sup>Unlike airlines based at the other BAA airports, representatives of the airlines at Stansted declined to take part.

4. Booz felt that there were elements of best practice within BAA at different terminals but best practice was not being spread either between the terminals or the airports.
5. Booz commented that Stansted had some issues in matching supply to demand consistently and had relatively high instances of staff mismatches compared with both the other BAA London airports and comparator airports.
6. Booz estimated that there was scope for a maximum potential process efficiency improvement of around 8 per cent in the central search process at Stansted. This compared with its estimates of ranges of between 5 and 12 per cent at the Heathrow terminals and of between 5 and 7 per cent at the Gatwick terminals.
7. Booz considered that, although changes to security requirements since 2005 were likely to invalidate the quantitative results from the 2006 process study, the general principles would still hold true.

*Booz's 2008 update for the CC*

8. In 2008, Booz found that there had been substantial process changes at Stansted since its previous site visits early in 2006. These were mainly required to comply with additional DfT requirements, which had both increased the workload and reduced throughput rates at passenger central search. [✂]
9. To compensate for the increased workload, BAA had significantly increased staffing and the number and quality of X-ray machines and archway metal detectors used. Although the core manning on each machine remained unchanged, extra staff had been deployed to prepare passengers for central search. Comparing 2007 with 2005 headcount equivalent levels, the overall headcount had increased by about two-thirds while passenger numbers had increased only slightly.
10. Booz found that a significant part of the requirement for extra resources had been met by converting part-time staff into full-time staff, which had been accompanied by the introduction of new rosters. This strategy was designed to create greater resilience, but also resulted in more staff being available in off-peak periods. As this increased the variation in utilization between peak and trough periods, it also increased the potential for efficiency gains. BAA told Booz that this variation would be reduced in time as it expected most traffic growth to be outside the current peak periods.
11. Booz's updated benchmarking study indicated some closing of the efficiency gap between Stansted and the most efficient airports. Nonetheless, it suggested that there was still scope to improve productivity by about 7 per cent.
12. Although Booz's bottom-up analysis suggested that Stansted had made some efficiency improvements since 2005, the strategy of converting part-time staff into full-time staff had increased the scope for efficiency improvements. Booz also found that absenteeism had worsened from already high levels. All three BAA London airports had high levels of absenteeism—the highest being at Heathrow, with Gatwick and Stansted having similar levels. Absenteeism was higher at the three BAA London airports than for any comparator airport in Booz's survey in both 2005/06 and 2007, and had worsened since 2005/06.
13. Booz's overall assessment was that there was scope for an overall efficiency improvement of 10 per cent in central search and that this could be achieved over a period of five years through better rostering and reducing absenteeism.

### ***Trolley management***

14. Booz told the CAA that its study of trolley management for the CAA showed that BAA had scope to improve its efficiency by improved staff rostering and shift management.
15. Booz commented that Stansted demonstrated very good practices in the organization and management of its passenger services function. It added that staff were able to adopt a number of passenger-facing roles, such as trolley management or PRM services, depending on the demand at different times of day.
16. Nonetheless, Booz estimated that there was scope to improve efficiency by about 10 per cent at Stansted. This compared with ranges of between 12 and 35 per cent at Heathrow and of between 16 and 17 per cent at Gatwick.

### ***Booz's 2008 update for the CC***

17. Booz found that the process for collecting abandoned trolleys and repositioning them was largely unchanged. There had, however, been considerable changes in the way that staff were organized. The first-and-last-impressions team was responsible for trolley management and a variety of tasks in car parks, the road networks, forecourts and the coach station. The sharing of dual-role staff between this team and the passenger service assistance function, which included security, had been discontinued in response to the need to increase security staffing. This had resulted in higher staffing requirements to establish the first-and-last-impressions team.
18. In June 2008, BAA had introduced coin-deposit trolleys. This was expected to reduce the incidence of abandoned trolleys significantly, lowering the demand for trolley collection. Booz estimated that this would provide scope for a 7 to 7.5 per cent increase in the efficiency of trolley management and that this could be achieved within one year.

### ***Airside and perimeter security***

19. Booz found that most of the benchmarked airports showed a lack of connection between demand and performance management in the airside and perimeter security process. Its study showed that single mode control posts (ie posts processing either passengers or vehicles, but not both) had higher throughput than mixed mode posts. Booz considered that BAA should consider adopting single-mode control posts to improve its efficiency.
20. Booz assessed that Stansted had medium scope to improve the efficiency of its airside and perimeter security. This compared with an assessment of medium to high scope at Heathrow and of medium scope at Gatwick.

### ***Booz's 2008 update for the CC***

21. In 2006, airside and perimeter security had been part of the same management function as terminal security. A separate function had now been established. [X] A rationalization of verification point manning had enabled BAA to achieve efficiency savings that largely offset the increased workload. The perimeter security process was largely unchanged. Booz considered that further efficiency improvements could be achieved by varying manning to reflect changes in workload. However, there was a lack of quantitative workload data on which to base the efficiency potential.

22. Booz estimated that there was, overall, scope for a 3 to 3.5 per cent increase in the efficiency of airside and perimeter security and this could be achieved over five years.

### ***PRM services***

23. This benchmarking exercise was chiefly concerned with quality of service rather than possible efficiency savings. Booz told the CAA that the benchmark airports adopted quite different approaches to PRM services, making comparisons difficult. Similarly, the BAA airports had inconsistent approaches to managing PRM services. Booz told the CAA that BAA appeared to have opportunities to improve its process through better oversight and improved management of a smaller number of suppliers.
24. Booz found that Stansted maintained a good balance between service efficiency and service quality. Stansted provided a wide range of PRM services, including access to shops. These services were provided by a combination of an in-house team and a third-party supplier. Booz noted that if there was less variation in the equipment used, fewer maintenance contractors would be needed, the time per 'PRM push' could be reduced and resources could be freed for other duties. Overall, Booz considered that Stansted performed reasonably well on the management of the PRM service and found that there was low scope for efficiency improvements. This compared with assessments of medium scope at Heathrow and of low to medium scope at Gatwick.

### ***Booz's 2008 update for the CC***

25. Under new EU legislation, from July 2008 airport operators became responsible for the entire PRM service, rather than the responsibility being split between airports and airlines. BAA has now subcontracted PRM services to a third party, Mitie Transport Services Ltd. This was achieved through a competitive tendering process in which the Stansted AOC took part. Booz found that this change had streamlined the PRM process by eliminating handover points between different contractors and reducing the number of wheelchair maintenance contractors.
26. The overall cost of the service previously provided by the airport and the airlines had been reduced. However, Booz felt that it was still too soon to assess whether the outsourcing of the service had been successful in terms of improved service delivery.
27. Booz considered the scope for efficiency gains in PRM services to be low. However, it did consider that there was some scope for tightening the PRM contract over a period of five years, with any efficiency gains being shared between Stansted and the contractor.

### ***The maintenance of PSE***

28. Booz told the CAA that its benchmarking of the maintenance of PSE showed that BAA's performance was patchy. Many aspects were good and the 98 per cent availability target was generally achieved. However, Booz considered that there was scope to reduce unplanned downtime, for example by returning assets to service more quickly. Assets were out of action due to unplanned causes for twice as much time as for planned causes. Booz added that there were few examples of repairs meeting their targets for the time to return to service. High-performing assets appeared to mask bad performance by low-performing assets. Booz told the CAA that the time-to-return-to-service performance measure needed to be more rigorously measured and a wider range of output-based performance measures could be used. Booz considered that BAA's 2 per cent downtime for its PSE was high compared with

other airports. However, given that maintenance was contracted out, this was not necessarily BAA's fault. Booz told us that it had heard that some of the few large contractors were of low quality and often failed to carry out orders. Booz considered that BAA could tighten the terms of its maintenance contracts on an annual basis to ensure that its suppliers carried out more of their planned orders.

29. Booz found that Stansted was an average performer in terms of process effectiveness. Given that there was room to reduce unplanned downtime, Booz assessed the scope for efficiency improvements in the management of PSE at Stansted as being high. Its assessments for Heathrow and Gatwick were the same.

#### *Booz's 2008 update for the CC*

30. Booz found that BAA had improved its procurement approach with the introduction of standard PSE maintenance contracts, which allowed the comparison of contractor performance. Several of the process improvements identified in the previous study had been implemented. Since the previous study, BAA had incorporated the central technical function previously known as 'acquire and maintain assets' within the 'business as usual' job function. The engineering control and site staff centre functions had now been relocated into a combined control centre. Booz found that the number of contractors had been reduced from three to two: one contractor had been dropped as a result of its poor performance. There was now one contractor with prime responsibility for all maintenance and the other contractor was a second tier supplier. Booz found that, although the assets were unchanged, PSE maintenance staffing at Stansted had been reduced by 20 per cent and asset utilization had increased by 5 per cent. Planned maintenance had increased relative to reactive maintenance. However, Booz thought that there was still scope to secure improvements by tightening up the contractual penalty clauses and upgrading availability targets.
31. Booz considered that there was medium scope for efficiency gains in the management of PSE. This could be achieved by a graduated tightening of the contract over a period of five years.

#### ***Management of check-in infrastructure***

32. Booz told the CAA that the benchmarked airports had a wide range of approaches to managing check-in infrastructure.
33. Booz found that passenger throughput per check-in desk at Stansted exceeded the value expected from its benchmarking. It thought that this might be explained by the high proportion of low-cost airlines there. Booz felt that improvements could be achieved by specifying service levels where appropriate, by improving check-in staff training, by continuously monitoring queueing, by introducing joint queue management with the airlines and by aiming for continuous improvement. Overall, Booz assessed that there was medium scope for efficiency improvement in the management of check-in infrastructure at Stansted. This compared with assessments that ranged from low to high for the Heathrow terminals and of medium for both Gatwick terminals.

#### *Booz's 2008 update for the CC*

34. Booz found that there were no major shortcomings in the management of check-in infrastructure. The queues that formed at peak hours were principally the result of the LCCs' business models, rather than Stansted's check-in allocation. Booz found that

baggage team managers had now been given sole responsibility for allocation management, resulting in improved service for customers.

35. Booz considered that there was low scope for efficiency gains in the management of check-in systems.

### ***Management of baggage systems***

36. Booz told the CAA that BAA's process governance and technical capabilities for baggage systems compared well with the benchmark sample.
37. Booz commented that Stansted was not as old as the other BAA airports and had a less complex baggage system with little or no linking between baggage lines. There was a spacious undercroft and scope for Stansted to grow into its existing facilities and expand. Overall, Booz considered that improvement opportunities at Stansted, in common with Heathrow and Gatwick, were incremental rather than radical.

### ***Booz's 2008 update for the CC***

38. Booz found that there had been little significant change to the overall process. Since the previous report several of the efficiency improvements identified by Booz had been partially implemented. An additional out-of-gauge line had been introduced. Investment in the replacement of hold-baggage screening infrastructure and the associated software had led to some efficiency improvement, as the baggage flow could now continue while images were being analysed. The staffing headcount had been reduced by about 15 to 20 per cent while throughput had increased. However, Booz felt that further efficiency gains might be achieved through the greater involvement of the airlines in decision-making on baggage systems.
39. Booz considered that there was low scope for efficiency gains in the management of baggage systems.

### ***Overall conclusions***

40. Booz found in its 2006 study for the CAA that, for all the processes considered, BAA had some scope for improvement, even if this was limited in some cases. The efficiency of BAA's labour-intensive processes, including central search, trolley management and airside security, could be improved by better rostering to achieve more consistent performance over the working day and by managing the high levels of absenteeism. Some of the efficiency gains would, however, result in improved quality of service (or less variable standards) rather than cost reductions.
41. Booz commented that Stansted made limited use of service level agreements compared with the other BAA London airports. It also considered that there was scope for Stansted to improve visual awareness of operations within its control room.
42. Booz's 2008 update for us showed some improvements in efficiency at Stansted in some areas, but considerable scope for efficiency improvements elsewhere. In particular, there was scope for a 10 per cent increase in efficiency in central search.

### ***The IDS study of manpower costs***

43. We discuss the work that IDS carried out on manpower costs in Annex 1.

## **The KPMG study of the finance and facilities functions**

44. In 2006, the CAA asked KPMG to carry out a benchmarking study covering both finance and facilities management. KPMG first compared BAA's performance with KPMG's internal finance benchmarks and secondly compared BAA's facilities management function with a benchmarking database supplied by Investment Property Databank (IPD).
45. KPMG considered that the results of its study indicated BAA was performing well in this area. It found that BAA's finance function was reflectively efficient in terms of both cost and headcount. KPMG felt that BAA was on the right path in transforming its finance function. KPMG thought that there had been a step change in efficiency, as new finance IT systems had been introduced and the finance function had been centralized into a service centre. BAA typically achieved second quartile scores compared with KPMG's sets of comparators. KPMG noted that for some processes, including regulatory compliance and reporting, BAA was less efficient than the average of KPMG's database. However, its performance in respect of regulatory compliance had been temporarily affected by the increased workload associated with the regulatory review. KPMG expected that future improvements would be achieved through continuous improvement, rather than further step changes. Even so, KPMG estimated that savings of up to 6 per cent (£0.7 million across the London airports) might be possible over Q5. These could be achieved by more efficient transactions processing and further improvements to management accounting and reporting.
46. In assessing facilities management, KPMG had contracted the assistance of a chartered surveyor. It compared BAA's facilities costs against weighted benchmarks from the IPD databank. KPMG concluded that, on an overall cost per FTE basis, BAA was more efficient than the IPD benchmark. In particular, BAA's overall space efficiency per FTE was 28 per cent better than the benchmark. KPMG felt that BAA had good practices for operations and project management. KPMG saw no scope for large improvements in the management of staff accommodation. Nonetheless, KPMG found that 8 of the 17 properties examined had higher costs than the benchmark, which generated a combined gap of £1.25 million from the benchmark (for the eight properties). BAA's costs per sq metre were high, but KPMG considered that it would be difficult to reduce them. BAA had actively tried to move its own staff away from expensive properties to release them for renting to airlines. However, KPMG felt that property cost savings of between 1 and 7 per cent a year (£0.2 million to £1.25 million across the London airports) might still be possible.
47. KPMG found that the use of space, in terms of the area and cost per FTE member of staff, was more efficient at Stansted than at Heathrow and Gatwick and considerably more efficient than its benchmark.
48. We did not ask KPMG to update this analysis for the present review.

## **The KPMG study of information technology costs**

49. The CAA also asked KPMG to carry out a study of BAA's information technology (IT) costs in 2006. The study focused on three areas: the cost of providing IT infrastructure; the cost of IT projects, particularly at the regulated airports; and the overall cost of IT across BAA as a whole. KPMG told the CAA that BAA had a relatively high spend on both IT infrastructure and IT for major construction projects.
50. KPMG considered that the underlying cost of BAA's IT infrastructure (ie IT costs excluding projects) was in line with, or better than, KPMG's benchmark average

costs. KPMG considered that BAA's IT service delivery performance had improved over the previous 18 months, although costs were increasing.

51. KPMG found that BAA's capital projects included an increasing proportion of IT expenditure and that BAA spent a higher proportion of its revenue on IT projects than many other organizations. Its project delivery performance was generally good in terms of benefits delivered. However, projects were often delivered later than planned.
52. We did not ask KPMG to update this analysis for the present review.

### **The LECG review of central cost allocation**

53. The CAA asked LECG to review BAA's approach to allocating central costs and revenues to its subsidiaries. LECG focused on the objectivity with which BAA allocated costs and revenues to the regulated airports and the rest of its business. It also reviewed the cost drivers and other factors BAA used to allocate costs and revenues compared with both recognized best practice and the CAA's statutory duties that govern airport price regulation. LECG modelled BAA's cost allocation methods and reviewed them in depth. It recommended that the CAA should make a number of changes in the allocated costs that were allowed into the calculation of the regulated price caps. These included removing the effect of capping the costs allocated to Stansted and the non-regulated airports, correcting a number of errors and changing some cost drivers.
54. We did not ask LECG to update this work for the present review.

## The CC's baseline opex analysis

### The CAA's approach

1. The CAA adopted a three-stage methodology in its top-down analysis of Stansted's opex:
  - (a) *Step 1*: involves establishing a baseline level of opex after removing atypical and one-off costs that need to be analysed separately;
  - (b) *Step 2*: involves rolling forward the baseline opex by taking account of growth (discussed further in Annex 5) and expected efficiency savings; and
  - (c) *Step 3*: involves adjusting the resulting projections to allow for any expected atypical costs and costs that were analysed separately.<sup>1</sup>
2. The CAA's analysis of baseline opex started with the actual 2006/07 costs (in 2007/08 prices) as set out in the March 2008 GSM projections that were submitted by BAA as its baseline opex. The CAA then identified certain costs, such as rates, security staff and utility costs, which it considered should be analysed separately and removed them from the baseline. As a consequence, much of the CAA's indicative opex for Q5 was based on actual opex for 2006/07 (in 2007/08 prices).

### BAA's concerns

3. In the Heathrow and Gatwick review, many of BAA's proposed adjustments to the baseline were received too late for us to consider in any detail. Consequently, in this review we asked BAA to provide us with details of any issues with the CAA's methodology or proposed adjustments in sufficient time for us to consider them properly.
4. BAA responded that the CAA's analysis (based on BAA's March 2008 Stansted submission) failed to recognize additional costs that had arisen since 2006/07 and had not been covered in the base costs or otherwise taken into account in the CAA's analysis.
5. In particular, BAA identified that police costs, cleaning costs and central costs had changed significantly since 2006/07, and that the CAA had failed to take these changes into account fully. BAA also identified that the CAA had not made an allowance for PRM costs, for which the airport became responsible with effect from July 2008. BAA also proposed amendments to the CAA's indicative allowances for ANS, based on the reduction in forecast passenger numbers between BAA's March 2008 and May 2008 submissions, and security staff costs, based on its belief that the CAA's methodology duplicated efficiency savings already built into BAA's forecasts. Finally, BAA identified that recent increases in utility costs had not been reflected in either of its submissions or in the CAA's indicative opex allowance calculations.

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<sup>1</sup>CAA reference to the CC, p133.

## **CC approach**

6. In order to determine a suitable baseline level of opex for Q5, we took account of actual opex for 2006/07. However, we also examined BAA's bottom-up forecast of opex for the current year, 2008/09, and its forecast opex over Q5 as a whole.
7. We concentrated on the larger items of opex and examined over 90 per cent of forecast 2008/09 opex. Where possible, we confirmed the accuracy of BAA's forecasts with other parties, for example by confirming the ANS costs with NATS, or by checking against contracts, for example for cleaning, maintenance and PRM services.
8. By comparing actual 2006/07 opex with forecast 2008/09 opex and with projected opex over the whole of Q5, we were able to identify and investigate items of opex where BAA anticipated that costs would change significantly from the actual prices in 2006/07.
9. Following our review of opex, we categorized costs as falling into one of the following categories:
  - (a) items to be kept in the baseline at their 2006/07 values but indexed forward to 2007/08 price levels;
  - (b) items to be completely removed from the baseline;
  - (c) items to be removed from the baseline at their 2006/07 values and replaced with alternative values at step 1 of the CAA methodology;
  - (d) items to be removed from the baseline with alternative values being substituted at step 3 of the CAA methodology; and
  - (e) items not included in the 2006/07 baseline that should be included at step 3 of the CAA methodology.
10. We set out, in greater detail, the reasoning behind our decisions below.

### **Items to be kept in the baseline at their 2006/07 values**

11. Following our review of historic and forecast costs, we determined that non-security staff costs, rent, the majority of other operating costs (comprising insurance, marketing and communications, airport licence fees, Public Transport Levy, and other costs of less than £1 million) should be kept in the baseline at their 2006/07 values, indexed forward to 2007/08 price levels. We have rolled these costs forward, taking account of passenger growth and expected efficiency savings thereafter.

### **Items to be completely removed from the baseline**

12. Following our review of historic and forecast costs, we determined that exceptional costs of £3.6 million, included in other operating costs, should be removed from the baseline as such costs, by their very nature, are atypical.

## **Items to be removed from the baseline at their 2006/07 values and replaced with alternative values at step 1 of the CAA methodology**

### ***Security staff costs***

13. Security costs increased dramatically following new security requirements brought in by the DfT in light of the security alerts in August 2006. These new security requirements led to BAA recruiting an additional 135 security staff at Stansted between August 2006 and March 2008.
14. In its reference to us the CAA adopted BAA's forecast security staff costs for 2009/10, as set out in the GSM at that time, but excluding pension service costs, which were analysed separately. It applied an efficiency factor of 1.5 per cent a year thereafter, although it did not apply a volume adjustment.
15. In a period which has been marked by a significant number of changes to security requirements, we consider it prudent to base security staff costs on the staffing levels necessary to meet current standards. Therefore, we have adopted BAA's revised forecast of security costs (excluding pension costs) for 2009/10 of £[~~xxx~~] in our calculations of opex.
16. We have added the forecast 2009/10 security staff costs of £[~~xxx~~] (in 2007/08 prices) to the baseline in the opex calculations at step 1 of the CAA's methodology.
17. The CAA did not apply a volume adjustment to its indicative assessment of Stansted's security staff costs in its reference to us. BAA argued that, to be consistent with the CAA's methodology and its approach in the Heathrow and Gatwick review, security staff costs should not be subject to a volume adjustment. We did not agree with this argument as it would suggest that security staff costs do not vary with changes in passenger numbers. The CAA informed us that it had considered whether to make further upward adjustments to security costs to allow for volume increases in the Heathrow and Gatwick review. However, it then took the view that there was not a strong case for applying a volume adjustment mechanistically to the new higher base year level of security costs as it was allowing for a considerable increase in the base level of security costs and there was still some uncertainty around the costs associated with the new service levels. For these reasons, the CAA had decided to treat security costs at Heathrow and Gatwick separately from the other 'above the line' opex elements, which were subject to the standard volume and efficiency factors. However, the CAA confirmed that it did not consider these arguments now applied at Stansted and therefore it believed that it would be correct to apply a volume adjustment to security staff costs in this case.
18. We have rolled forward forecast 2009/10 security staff costs taking account of expected efficiency savings and passenger growth thereafter.

### ***Police costs***

19. Actual police costs for 2006/07 were £6.7 million. Subsequently, BAA agreed a new PSA with Essex Police costed at £[~~xxx~~] for 2008/09 (equivalent to £[~~xxx~~] in 2007/08 prices).
20. We have added the new PSA charges of £7.5 million (in 2007/08 prices) into the baseline in the opex calculations at step 1 of the CAA's methodology in 2008/09 and then rolled them forward, taking account of passenger growth and expected efficiency savings thereafter.

21. BAA argued that imposing both an efficiency adjustment and volume factor on police costs would lead to an unachievable reduction in police costs over Q5. BAA said that the new PSA was not dependent on passenger numbers and instead based its forecasts of police costs on the assumption that such costs would be around 14 per cent of staff costs. We noted BAA's arguments, but, as police costs in our opex allowance amount to over 15 per cent of staff costs, we considered that our approach was compatible with BAA's assumption.

### ***Maintenance and equipment costs***

22. The actual maintenance and equipment costs in 2006/07 included costs relating to vehicle fuel sales, which have subsequently been outsourced, and one-off maintenance costs incurred as part of BAA's 'fix the basics' project. Neither of these costs were expected to recur in Q5.
23. We have substituted the 2008/09 forecast maintenance and equipment costs of £10.2 million in the baseline at step 1 of the CAA's methodology. We then rolled them forward, taking account of passenger growth and expected efficiency savings thereafter.

### ***Other general expenses (included within other operating costs)***

24. The 2006/07 baseline opex included £1.2 million of other general expenses. Other general expenses fell significantly to £0.3 million in 2007/08 and were forecast by BAA to average £0.6 million a year over Q5. Consequently, we considered that using the 2006/07 costs would overstate other general expenses in the baseline by £0.6 million.
25. In our opex calculations, we replaced the 2006/07 other general expenses in the baseline with the forecast of £0.6 million a year over Q5. We then rolled them forward, taking account of passenger growth and expected efficiency savings thereafter.

### ***Cleaning (included within other operating costs)***

26. Actual cleaning costs in 2006/07 were £2.8 million. In 2007/08 BAA launched its 'fix the basics' project to improve the appearance and operations of its airports; this has resulted in a substantial increase in cleaning costs.
27. With effect from 2008/09, BAA negotiated a fixed-price cleaning contract for the majority of cleaning services. A small amount of other cleaning of properties is undertaken by a separate contractor and BAA has identified additional ongoing cleaning costs associated with the 'fix the basics' project throughout Q5. In total we estimated cleaning costs to cost £4.5 million a year in 2008/09 prices (equivalent to £4.4 million a year in 2007/08 prices).
28. BAA agreed with our calculation of the baseline cost. However, it stated that it was increasingly difficult to expect an ageing asset to deliver continuing efficiency improvements and forecast that cleaning costs would increase to £4.8 million a year over Q5. We noted BAA's comment but considered the fact that the majority of cleaning costs were now fixed under a contract, which also included efficiency targets and rebates was more significant. We also recalled that neither we nor the CAA made any adjustment for this issue in the Heathrow and Gatwick review for Q5, despite the fact that the terminals at these airports (other than Terminal 5 at Heathrow) are older than the Stansted terminal. The CAA commented that this sort of

issue should be taken into account when determining the appropriate overall efficiency factor to apply, rather than by adjusting the opex on a line-by-line basis.

29. We replaced BAA's actual 2006/07 cleaning costs with the 2008/09 revised annual cleaning costs of £4.4 million at step 1 of the CAA's methodology. We then rolled them forward, taking account of passenger growth and expected efficiency savings thereafter.

### ***Capitalization of staff costs (included within other operating costs)***

30. Where Stansted staff are involved in the design, development and completion of capital projects, BAA capitalizes the costs at agreed hourly rates. Capitalizing the costs reduces opex and increases the cost of the asset in the balance sheet. Actual staff costs capitalized in 2006/07 amounted to £2.2 million. BAA's May 2008 forecast projected capitalized staff costs at £2.0 million a year over Q5. Initially, we kept capitalization of staff costs in the baseline at the 2006/07 figure.
31. BAA subsequently significantly reduced its capex programme over Q5. Since there are now fewer capital projects in the forecasts there will also be less opportunity for staff costs to be capitalized. BAA now estimates that £1.0 million of staff costs a year will be capitalized over Q5.
32. We have replaced the actual 2006/07 capitalization of staff costs in the baseline with a revised annual capitalization of staff costs of £1.0 million at step 1 of the CAA's methodology in 2009/10. We then rolled this forward, taking account of passenger growth and expected efficiency savings thereafter.

### ***Central costs***

33. Central costs comprise two separate elements: intercompany costs and corporate office costs.

#### ***Intercompany costs***

34. Intercompany recharges consist of recharges of marketing costs, share schemes procured at the group level and the services of the Business Support Centre near Glasgow, which provides HR and financial services to the group.
35. Costs increased over Q4 as Stansted grew and required greater support from central services. On this basis, we recommend that the 2006/07 actual costs of £5.0 million should be replaced by the Q5 forecast average of £5.9 million a year from 2008/09 onwards.

#### ***Corporate office costs***

36. Actual 2006/07 corporate office costs were £10.0 million. However, these costs included the effects of a cap on Stansted's share of costs, which reduced charges to Stansted by £5 million a year. This adjustment was no longer deemed appropriate by BAA, the CAA or us. Furthermore, in 2006/07 not all corporate office costs were allocated to the various BAA businesses: certain costs, such as company secretarial costs, were considered to be head office costs and retained by BAA Ltd. In the Heathrow and Gatwick review for Q5, the CAA determined that all corporate office costs should be reallocated to the BAA businesses, which has increased Stansted's share of corporate office costs by a further £3 million a year.

37. We reviewed 2008/09 corporate office cost forecasts and identified that many aspects of these costs were higher than the average forecast over Q5. Therefore, we adjusted total forecast corporate office costs to reflect BAA's long-term views of each cost category better. Then, we applied BAA's cost allocation model to arrive at an estimate of Stansted's share of the ongoing corporate office costs, stripped of atypical items. This suggested that, over Q5, Stansted's share of corporate office costs would be £19.2 million a year.
38. The CAA also determined in the Heathrow and Gatwick review for Q5 that BAA should not:
- (a) charge a mark-up on corporate office costs;
  - (b) reallocate costs from the non-designated airports to the three London airports; or
  - (c) charge costs relating to the BAA management incentive scheme.

We took into account these items and reduced Stansted's share of corporate office costs by a further £6.4 million to £12.8 million.

### Summary

39. We have added total central costs of £18.7 million (in 2007/08 prices, on the basis of intercompany costs of £5.9 million plus corporate office costs of £12.8 million) to the baseline at step 1 of the CAA's methodology in 2008/09. We then rolled this forward, taking account of passenger growth and expected efficiency savings thereafter.

### Items to be removed from the baseline with alternative values being substituted at step 3 of the CAA methodology

#### Pensions

40. The CC's views on pension costs are set out in Appendix J. Table 1 summarizes our recommendation based on cash contributions.

TABLE 1 Calculation of Stansted allowance for pension costs

	<i>£ million, 2007/08 prices</i>				
	2009/10	2010/11	2011/12	2012/13	2013/14
Cash contribution to DB scheme equivalent to overall £80 million nominal contribution for 3 calendar years	7.9	7.8	7.3	6.5	6.3
Contribution to DC scheme	<u>0.1</u>	<u>0.3</u>	<u>0.5</u>	<u>0.7</u>	<u>0.9</u>
Total pension costs	8.0	8.1	7.8	7.2	7.2

Source: CC calculations from BAA data.

Note: Subject to rounding differences.

41. We have added the forecast pension costs set out in Table 1 to opex at step 3 of the CAA's methodology.
42. We have not adjusted pension costs further to reflect either efficiency adjustments or changes in passenger numbers.

## **Business rates**

43. The CC instructed Atisreal to review the business rates charge for Stansted over Q5. Table 2 sets out Atisreal's calculated rates charges over Q5 based on BAA's forecast capex.

TABLE 2 **Atisreal forecast rates**

*£ million, 2007/08 prices*

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Forecast rates	12.2	12.3	13.4	13.6	13.8	65.3

Source: Atisreal report.

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44. BAA has since updated its capex plans and submitted a revised CIP. At our request, BAA updated the rates forecasts based on the figures agreed between BAA and Atisreal to reflect the reduced CIP. Table 3 sets out BAA's revised rates forecast for Q5.

TABLE 3 **CC BAA revised forecast rates**

*£ million, 2007/08 prices*

	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Forecast rates	12.0	12.0	12.1	12.1	12.2	60.3

Source: BAA.

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45. We have added BAA's revised forecast rates costs to opex at step 3 of the CAA's methodology.
46. We have not adjusted the forecast rates costs further to reflect either efficiency adjustments or changes in passenger numbers.

## **Utility costs**

47. The CC instructed IPA to review Stansted's electricity, gas and water costs over Q5. Since BAA prepared its original forecast of utility costs, the unit cost of electricity and gas have increased significantly, resulting in a corresponding increase in forecast utility costs over Q5.
48. Table 4 sets out IPA's forecast utility costs over Q5 taking account of BAA's forecast passenger numbers and capex in the period.

TABLE 4 IPA forecast utility costs

	2007/08 prices, £ million				
	2009/10	2010/11	2011/12	2012/13	2013/14
Electricity	9.7	9.2	8.8	8.3	7.7
Gas & Domestic Fuel	1.0	0.9	0.9	0.8	0.7
Water & Sewerage	0.8	0.8	0.9	0.9	0.9
LES Distribution Fee/Raglan	<u>4.2</u>	<u>4.9</u>	<u>6.0</u>	<u>7.3</u>	<u>8.7</u>
Sub-total	15.7	15.8	16.5	17.3	18.0
Telecommunications	0.9	1.0	1.0	1.0	1.0
Waste and Recycling	<u>1.0</u>	<u>1.0</u>	<u>1.1</u>	<u>1.1</u>	<u>1.1</u>
Grand total	17.6	17.8	18.6	19.4	20.1

Source: IPA and BAA.

Note: Subject to rounding differences.

49. BAA subsequently updated its capex plans and submitted a revised CIP. IPA has reviewed BAA's revised utility cost forecasts, based on this lower CIP, and revised its own forecasts accordingly. Table 5 sets out the revised forecast utility costs for Q5. These forecasts take account of our most likely passenger forecasts and the reduced capex in the period.

TABLE 5 Revised forecast utility costs

	£ million, 2007/08 prices				
	2009/10	2010/11	2011/12	2012/13	2013/14
Electricity	9.6	9.0	8.6	8.2	7.6
Gas & Domestic Fuel	1.0	0.9	0.9	0.8	0.8
Water & Sewerage	0.8	0.8	0.9	0.9	0.9
LES Distribution Fee/Raglan	<u>4.2</u>	<u>4.4</u>	<u>4.4</u>	<u>4.6</u>	<u>4.6</u>
Sub-total	15.7	15.3	14.9	14.7	14.1
Telecommunications	1.0	1.0	1.0	1.0	1.0
Waste and Recycling	<u>1.0</u>	<u>1.0</u>	<u>1.1</u>	<u>1.1</u>	<u>1.2</u>
Grand total	17.6	17.3	17.0	16.8	16.2

Source: IPA and BAA.

Note: Subject to rounding differences.

50. We have included IPA's revised forecast utility costs in opex at step 3 of the CAA's methodology. IPA identified that BAA had adjusted its water consumption forecast to reflect the reduced capex programme but had not adjusted its waste (sewerage) usage forecasts. As we did not receive IPA's revised waste forecasts in time to include them in our projections in this report, we recommend that the CAA consider whether the above forecasts should be revised to take account of them in due course.
51. We have not adjusted the forecast utility costs further to reflect either efficiency adjustments or changes in passenger numbers.

### Items not included in the 2006/07 baseline that should be included at step 3 of the CAA methodology

#### ANS

52. ANS costs were not included in the 2006/07 actual figures as the charges were not part of BAA's opex until 2008/09 (these costs were previously covered by a separate charge to the airlines). The current charges equate to approximately 46p per passenger at 2008/09 prices (equivalent to 45p per passenger in 2007/08 prices).

53. Using our current most likely forecast of passenger numbers, we have added the ANS costs set out in Table 6 to opex at step 3 of the CAA's methodology. As the ANS charge is largely dependent on passenger numbers (although it is actually primarily related to the number of landings), in our sensitivity cases we have adjusted the ANS charge to reflect our low and high forecasts of passenger numbers.

TABLE 6 ANS charges forecast—most likely passenger forecast

	2007/08 prices, £ million					
	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Forecast passenger numbers (m)	21,500	22,700	23,900	25,600	27,000	120,700
Price per pax (£)	0.45	0.45	0.45	0.45	0.45	0.45
Forecast ANS charge (£m)	9.7	10.2	10.8	11.5	12.1	54.3

Source: CC workings.

Note: Subject to rounding differences.

54. We have not adjusted the forecast ANS costs further to reflect either efficiency adjustments or changes in passenger numbers.

### **PRM costs**

55. BAA's 2006/07 actuals do not include PRM costs because the overall responsibility for PRM services did not fall upon the airport operator until July 2008. BAA has negotiated a fixed price PRM contract for £1.8 million a year in 2008/09 prices (equivalent to £1.7 million in 2007/08 prices) that lasts until 30 April 2013, with the PRM contractor absorbing RPI increases.
56. Since BAA has negotiated a fixed price contract, we have added the annual PRM cost of £1.7 million to opex at step 3 of the CAA's methodology in 2009/10 and subsequent years.
57. Given that the PRM contract is set at fixed prices, with the contractor absorbing RPI increases, there is an argument for deflating the cost in subsequent years. However, as we estimated that the impact on the opex allowance would be less than £1 million over Q5, we did not make this adjustment.
58. We have not adjusted the forecast PRM costs further to reflect either efficiency adjustments or changes in passenger numbers.

### **Euro entry costs**

59. BAA assumed that the UK would join the euro in 2013/14. Our commercial revenue consultant, DTZ, concluded that this was unlikely in the current political and economic climate and revised BAA's forecast bureau de change revenues accordingly. On this basis we have not included any forecast costs associated with joining the euro in our opex calculations for Q5.

### **Terminal departures extension costs**

60. BAA's May 2008 GSM projections allowed for a proposed extension to the terminal departures area to provide more retail space and increase commercial revenues. BAA forecast opex of £0.6 million in 2011/12 and £1.3 million thereafter in respect of the proposed departures extension.

61. However, BAA's latest CIP does not include this proposal. On this basis we have not included any forecast costs associated with the proposed extension to the terminal departures area in our opex calculations for Q5.

**CAA costs**

62. BAA has forecast £1 million of CAA costs in 2013/14 in respect of the Q6 review. We have kept this cost in our opex projections.
63. We have not adjusted the CAA's forecast costs further to reflect either efficiency adjustments or changes in passenger numbers.

## Review of volume adjustment

### Introduction

1. The CAA's method of calculating the amount to be allowed for opex includes adjusting baseline opex to take account of changes in the number of passengers served. This volume adjustment factor was based on an estimate of the elasticity of opex to passenger numbers. In its recommendations to us, the CAA used an estimate of 0.3 for the opex to passenger elasticity<sup>1</sup> which was derived from an analysis of the operating costs of Heathrow, Gatwick and Stansted carried out by us in 2002.
2. We have reviewed and updated this estimate using more recent data.

### Methodology

#### *Long-run variability of opex*

3. As part of an attempt to benchmark the relative efficiency of BAA's airports, we first carried out a regression analysis of the reported opex of 56 airports (or airport groups) for the years 2001 to 2006. The airports included medium and large UK and European airports and several large US airports. As our analysis regressed opex against passenger numbers, the slope of the regression line provided an estimate of the opex to passenger elasticity.
4. This analysis included airports of a range of sizes at many stages of development. It did not include dummy variables for each airport. The analysis therefore effectively examined how opex increased as airports expanded by building additional terminals and other facilities. In this way it estimated the long-run variability of opex.
5. We had reason to believe that not all airports had prepared their costs on the same basis as BAA. For example, at some US airports, airlines operate their own terminals and terminal costs are not therefore included in airport opex. We have also been told that some European airports carry out their own ground handling and that some airport costs included the cost of ANS.
6. Inspection of the results from our regression model showed an implausible variation in the apparent efficiency of airports. This appeared to confirm that not all the data was prepared on a comparable basis. Therefore, we excluded airports from the analysis where we had reason to believe that their data might not be comparable to the data from BAA's airports. Whichever combination of airports was included in the model, the slope of the regression line was around 0.7. Although we did not believe that any of these models were sufficiently reliable to be used to estimate the relative efficiency of the airports, they suggested that the volume adjustment factor for long-run variations in passenger volumes was probably about 0.7.

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<sup>1</sup>That is, it assumed that if passenger numbers increased by (say) 10 per cent, opex would increase by 3 per cent.

### **Short-run variability of opex**

7. On reflection, we realized that a measure of the long-run variability of opex was not appropriate for use as the adjustment factor in the CAA's opex methodology. The reason for this was that the CAA's approach involved examining the effect of small changes in passenger numbers from year to year, over a period when no major airport developments took place. (When, as in the case of Heathrow, a new terminal opened, a separate explicit adjustment had been made to opex.) The CAA's volume adjustment factor should consequently be a measure of the short-run variability of opex.
8. Therefore, we carried out a second analysis to estimate the short-run variability of opex. To ensure that all the data was comparable, we limited this analysis to the seven BAA UK airports. We also checked that the period covered did not include any major development, such as a new terminal opening. A dummy variable was included for each airport to ensure that the analysis did not effectively base the slope of the regression line on a comparison of the costs of airports with different levels of facilities.
9. This second analysis produced an estimate of 0.3 for the volume adjustment factor. As this factor adjusts for the short-run variation in opex with passenger numbers, in the CAA methodology a further explicit adjustment would need to be made for any substantial variation in the facilities at an airport, such as the opening of a new terminal or a new runway.
10. We set out our detailed analysis below.

### **The detailed estimation of the opex scale elasticity of passenger volume**

11. We regressed the logarithm of real opex<sup>2</sup> on passenger volume for the panel of BAA airports, using six years of data from 2001 to 2006. We found that the 95 per cent confidence interval for the scale elasticity of opex to passenger volume was between 0.1 and 0.5, with a central estimate of 0.3.
12. The data for Heathrow and Gatwick came from the reports by TRL/Jacobs Consultancy,<sup>3</sup> financial data for other airports came from the reports by the University of Bath/CRI<sup>4</sup> and passenger volumes came from CAA statistics. The model explained the variation around its mean of the logarithm of expenditure,  $\log(OPEX_{it})$ , in any year,  $t$ , for each airport,  $i$ , as follows:
$$\log(OPEX_{it}) = C_i + b \log(PAX_{it}) + e_{it}$$
13. In this ordinary least squares (OLS) model there is a constant,  $C_i$ , for each airport and the short-term scale elasticity,  $b$ , is assumed to be the same for all BAA airports.<sup>5</sup> The final term,  $e_{it}$ , assumed that deviations from the model and actual expenditure in any year are independent normal random errors of the same proportion.
14. Table 1 shows the results of the regression. The coefficient of  $\log(PAX)$  in the table shows that the central estimate for the scale elasticity of opex to passenger volume is

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<sup>2</sup>To obtain real operating costs we converted to 2006 prices using the index of retail prices excluding mortgage payments (RPIX).

<sup>3</sup>*Airport Performance Indicators*, published by Jacobs Consultancy in 2008 and TRL in earlier years.

<sup>4</sup>*Airports Statistics*, Centre for Regulated Industries, University of Bath.

<sup>5</sup>Whereas a model that explained the variation between the means would measure long-term scale elasticity.

0.3, with a standard error of 0.1, implying a 95 per cent confidence interval from 0.1 to 0.5.

TABLE 1 Results of OLS regression to estimate scale elasticity of passenger volume

<i>Variable</i>	<i>Coefficient</i>	<i>Standard error</i>	<i>t</i> <i>Statistic</i>	<i>p-value*</i>
ABZ constant	5.73	1.43	4.00	0.0003
EDI constant	6.11	1.53	4.00	0.0003
GLA constant	6.27	1.54	4.07	0.0003
LGW constant	7.32	1.67	4.38	0.0001
LHR constant	7.97	1.74	4.57	0.0001
SOU constant	5.42	1.35	4.00	0.0003
STN constant	6.77	1.62	4.19	0.0002
Log (PAX)	0.28	0.10	2.90	0.0065

Source: CC calculations.

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\**p*-values less than 0.05 are usually considered to be statistically significant.  
Note: The dependent variable is Log (OPEX).

## Lower cost methods of providing airport services

### Introduction

1. We wanted to consider whether Stansted could modify its operations to achieve savings whilst still providing the appropriate quality of service to LCCs. We consulted operations experts from Ryanair and easyJet to explore whether, as key customers and as parties with extensive experience of low-cost terminals, they had identified areas where potential savings could be made. Separate meetings were held with Ryanair and easyJet. The discussions covered all aspects of terminal and airfield operations and also considered the potential design of a new terminal, as a way of considering alternative ways of operating the existing terminal.

### Terminal design

2. Ryanair described how its proposed design for the second terminal at Stansted would operate and easyJet described its ideal design for a new terminal.
3. Ryanair told us that, based on its experience of about 150 airports around Europe, it favoured a compact terminal building, with no check-in islands, lounge or retail space, linked to several piers with limited retail space and ground-floor gaterooms. Passengers would be pre-boarded into the gaterooms, which was intended to help the airline establish who was there and facilitate quick boarding.
4. EasyJet favoured a long, thin terminal with minimal retail space and no piers. Access would be provided to aircraft via short bridges over a service roadway. For first-wave operations, easyJet advocated about two-thirds of stands being contact stands and about one-third remote stands. Throughout the rest of the day, it was envisaged that most (if not all) other flights would be serviced from the contact stands. Nevertheless, a significant proportion of aircraft would be serviced on remote stands with passengers being bussed to the aircraft via the service roadway.
5. Neither the Ryanair nor the easyJet design incorporated airbridges or transit systems.
6. easyJet identified a 'marquee-type building' at Lyon, as well as Berlin Schönfeld, as good examples of efficient low-cost terminal operations. Ryanair said that passengers liked Carcassonne Airport 'because they can be in their cars within 15 minutes'.
7. Both Ryanair and easyJet agreed that, within Stansted's existing terminal, it was quite possible that a majority of opex was unavoidable because it was dictated by the inefficient existing design and layout of the terminal, which was fundamentally an expensive building to operate. For example, there were limited opportunities to reduce utility costs or rates because they were dictated by the size of the building.
8. Both airlines commented that they had little knowledge of what lay behind any of BAA's detailed opex figures, particularly on security personnel, and therefore found it difficult to comment on where savings could be made.
9. We set out below specific areas where one or both of the airlines commented on operations at Stansted or expressed concern about opex.

## **The tracked transit system**

10. Ryanair suggested that savings could be achieved by taking the TTS out of operation and replacing it with walkways. We prepared an outline costing of this idea and found that it was unlikely to result in savings once the consequential capex was taken into account.

## **Airbridges**

11. Ryanair suggested that savings could be made by taking the airbridges at satellites 1 and 2 out of operation.

## **Trolleys**

12. Ryanair supported BAA's introduction of coin-operated trolleys and thought that this might lead to a very small staffing reduction.

## **Check in**

13. Ryanair suggested that, with increasing use of Internet check-in and self-service kiosks, Stansted might be able to close a check-in island in the next few years. EasyJet said that the time saving between a simple bag drop and checking-in a passenger with hold luggage was insufficient to warrant investment in kiosks.

## **Security costs**

14. The airlines felt that security costs at Stansted were too high and noted that staff were paid in the top quartile. The airlines thought that considerable efficiency improvements could be achieved whilst improving service quality. They also pointed to significant rostering inefficiencies and possibly a manipulation of overtime by staff.
15. EasyJet suggested that the security function could be put out to tender and that penalties could be attached for failing to meet agreed service levels.

## **Baggage systems**

16. Both airlines favoured simple, robust baggage systems without automatic sortation. There were no immediate cost-saving opportunities but there was potential for savings when the present system was replaced. easyJet complained about slow arrivals baggage delivery. Ryanair commented that half its passengers had no hold baggage and it expected this proportion to increase. easyJet said that approximately one-quarter of its passengers had no hold baggage.

## **Car parking and public transport**

17. Ryanair objected to BAA's incentive schemes to increase the use of public transport by passengers and staff getting to the airport. It claimed that it had achieved more by refusing to pay for staff car parking places and suggested that BAA should cease to provide subsidized car parking for staff.

## **Fire service**

18. Ryanair suggested that BAA should benchmark its fire service costs and consider forcing reductions in the cost of fire services through employing new staff on new service contracts in the same way as Manchester had done. However, easyJet noted that Stansted was categorized as Fire Category 7-9 which tightly specified the required service and potentially limited the savings that could be achieved in this area.

## **Police costs**

19. The airlines felt that the police costs at Stansted were excessive, although they acknowledged that Stansted was obliged to reach agreement with Essex Police and therefore the scope for cost reductions was limited.

## **Fix the basics**

20. Ryanair feared that 'fix the basics' was an attempt by BAA to obtain more income from the airlines by increasing opex. However, it did acknowledge that the airport terminal had looked 'filthy' and that a significant amount of additional cleaning had occurred in 2006/07.

## **Funding of local projects**

21. The airlines commented that BAA contributed to a number of local projects, such as the Little Hadham bypass and bus service improvement schemes, which effectively made the airlines subsidize council projects without their consent. Ryanair considered that these projects would have been funded without BAA's help and that there was no justification for BAA agreeing to contribute to costs.

## **Assessment**

22. We thought that the airlines had interesting ideas about how a new terminal should be designed and constructed to operate more efficiently. They also had reservations about the level of costs incurred by BAA at Stansted. Nonetheless, after considering their proposals, we concluded that neither airline could identify specific, viable ways in which BAA could reduce opex, other than by general incremental efficiency improvements, such as reductions in pay rates, improved rostering, better management of absence and reductions in head office expenditure.
23. Ryanair and easyJet both commented that the majority of opex at Stansted was driven by the existing inefficient shape and design of the airport. Therefore, there were limited opportunities to make significant savings.
24. We costed one specific suggestion of taking the TTS out of operation and found that this was unlikely to result in savings once the consequential capex was taken into account. We also investigated the possibility of taking the airbridges out of operation at satellites 1 and 2 but found that it would be problematic, as several airlines currently use them, particularly for early morning departures and evening arrivals. Any savings for BAA would be limited to maintenance costs as the airbridges are operated by the groundhandlers.

25. Given the design, size and layout of the current terminal and satellites, we were unable to identify any other radical ways of reducing opex through changing operational practices.

## Capitalization of staff costs

### Introduction

1. Staff costs comprise a significant proportion of Stansted's opex. In addition, BAA capitalizes a significant amount of internal staff costs relating to capital projects. In discussions between the SACC and BAA, the SACC questioned whether BAA could, in effect, 'double-count' these staff costs by including them within its opex and obtaining a return on the capitalized costs through the RAB. The SACC also queried whether there could be 'double-counting' of corporate office staff costs incurred at a group level which were recharged to Stansted through central costs in opex and also capitalized.

### Stansted costs

2. BAA informed us that all Stansted staff costs are included in opex. At a later stage, an adjustment is made to reduce opex and increase capex in respect of capitalized staff costs. This adjustment to opex is shown separately from staff costs in 'other operating costs'. Where staff are involved in capital projects, for example in design, planning or construction management, they complete timecards setting out the number of hours to be charged to each project. All internal time charged to projects must be agreed by the project manager. It is Stansted's policy that internal time charged to a project should not exceed the amount of time budgeted for that project. The timecards are entered into BAA's project management software package, which apportiones the time to the various projects at the agreed charge-out rates, which are set by the BAA central capital department.
3. On a monthly basis, BAA's project management software package is interfaced with BAA's general ledger which results in opex being reduced, and capex being increased, by the total value of staff costs to be capitalized. Because BAA uses standard hourly rates for the capitalization of staff time, the reduction in opex (and increase in capex) is greater than the underlying salary costs of the individual members of staff.

### Corporate office costs

4. A similar process happens at corporate office level; costs are initially shown as opex in the various departments within BAA and then opex is reduced by capitalizing costs relating to capital projects. The remaining opex is then recharged across the various group companies in accordance with a set formula. For example, in the 2007/08 forecast, planning and surface access costs were estimated to be £4.4 million at the corporate office level, with £2.3 million of costs relating to Stansted SG2, which were capitalized, and the remaining opex of £2.1 million was recharged across the BAA group on the basis of passenger numbers.
5. The 'Acquire and Maintain Assets' capital department is responsible for design, development and construction projects at the corporate office level. It is BAA's aim to capitalize all costs relating to this department against the associated capital projects so that none are recharged to the individual businesses as opex. This provides comfort that the Stansted airlines are not paying these costs twice, through the increased project costs in the RAB and recharged corporate office costs.

6. BAA provided us with copies of documentation supporting the staff costs capitalized on an annual basis which tied in to the costs capitalized against individual projects and agreed in total to the reduction in opex for capitalized staff costs.

### **Conclusion**

7. We have seen no evidence that BAA has 'double-counted' capitalized staff costs, whether incurred by Stansted or by the BAA Group.