



**AIRPORTS PRICE CONTROL REVIEW –
INITIAL PROPOSALS FOR HEATHROW,
GATWICK AND STANSTED**

**VIRGIN ATLANTIC
RESPONSE TO CAA CONSULTATION**

‘Rewarding Failure’

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I. Regulatory Overview

1. “Benign” is among the more polite descriptions applied to the Civil Aviation Authority’s record of regulating BAA’s Heathrow, Gatwick and Stansted Airports. By any objective measure, BAA has survived regulatory supervision remarkably well, something reflected in a history of extremely healthy share price performance and a substantial bid premium paid by Ferrovial and associates last year. At the same time, dissatisfaction with BAA’s service performance has reached a level where it is almost impossible to find anyone outside the company itself willing to argue that it should not be broken up. Customer dissatisfaction remains at a very high level.
2. The CAA’s performance as a regulator came in for particular criticism following the Q4 regulatory settlement. The customer-unfriendly approach adopted during the consultation, fortunately at least partly corrected during the Q5 process, inevitably favoured BAA. More importantly, the CAA ignored airline protestations that the regulatory settlement itself was far too generous to BAA. History has shown that the airlines were correct and the CAA wrong. There has been no public recognition of this fact by the regulator. The airlines and travelling public, who together eventually pay for the CAA’s mistakes, deserve an apology.
3. The Office of Fair Trading’s December 2006 report, “UK Airports,”¹ is a summary by an objective observer of the monopoly position enjoyed by BAA in the South East of England and Lowland Scotland, with all that a monopoly position implies in terms of reduced output, inefficiency and higher prices. It is worth quoting a few of the OFT conclusions:
 - “The OFT believes that BAA’s high regional market shares in the South East of England the Lowland Scotland, the system of economic regulation of airports, and capacity constraints combine to prevent, restrict or distort competition.”²

- “In the South East of England, BAA’s ownership of Heathrow, Gatwick and Stansted limits competition between airports to promote the delivery of extra capacity in a timely and cost effective manner.”³
 - “None of the major airlines operating out of BAA airports in the South East of England expressed confidence in BAA’s current investment plans for the South East of England.”⁴
 - “We also have concerns about the impact of the current regulatory framework. In particular, BAA has an incentive to make investments justifying higher charges to airlines, without necessarily expanding capacity (‘gold plating’).”⁵
 - “Heathrow and Gatwick have performed poorly in international surveys of the quality of service at airports.”⁶
4. It is difficult to avoid the conclusion that the OFT’s findings are a damning criticism of the CAA’s regulatory record. The purpose of regulation must surely be to ensure, as far as possible, that the behaviour of a monopolist reflects what it would have been in a competitive environment. Yet the CAA has failed to satisfy the monopolist’s customers, failed to increase BAA’s efficiency sufficiently, failed to ensure the provision of a high quality service and failed to keep BAA’s prices at a reasonable level.
5. The question must be asked: why was it left to the OFT to carry out this investigation and publicise its criticisms of BAA? The CAA is amply stocked with well-paid analysts and has shown a willingness to investigate airline behaviour. The CAA sees itself in the forefront of a campaign to deregulate the airline industry and introduce more competition. Its published reports are highly regarded. Why has it been so reticent to investigate the structure of the UK airport sector? There is nothing in the OFT report that the CAA could not have uncovered several years ago. The argument that the CAA does not have the powers to break-up BAA is hardly an excuse. The OFT has no powers in this area either, other than to refer the issue to the Competition Commission.

6. The CAA has shied away from a radical approach to airport regulation. Its record does not compare well with that of other regulators of UK monopolies. The former Group Director of Planning and Regulatory Affairs at BAA recently wrote:

“Until relatively recently, the UK airports sector operated on the basis of a stable, informal, give-and-take partnership between government, the regulator – the Civil Aviation Authority – and airports...”⁷

7. Note the absence of any reference to the customers of airports in this cosy relationship. It is far from obvious that a regulator should be a willing participant in a “stable, informal, give-and-take partnership” with the company it regulates. Clearly, however, this is how BAA views the situation.
8. Virgin Atlantic has frequently criticised the imbalance in the current airport regulatory process between BAA and its customers. This was particularly a factor during the Q4 consultation, but has been endemic since airport regulation was first introduced. It will always be in BAA’s interests to devote whatever resources are needed to achieve a favourable regulatory outcome. To a large extent, its whole future, and the remuneration of its management and shareholders, depends on that outcome. For the airlines, on the other hand, BAA airport charges are only one, albeit a significant, cost element, and the competitive nature of the airline sector reduces the impact individual companies can make on the regulatory process.
9. The CAA has shown no willingness to recognise this imbalance, let alone do anything about it. This is surprising since BAA itself appears to recognise that there is some validity in the argument. To quote again the former BAA Group Director of Planning and Regulatory Affairs, who over many years was responsible for BAA’s input to the Quinquennial Reviews:

“The process needs to address the natural disparity in resources between the parties. Airports, which have all of their revenues and their capital programmes at stake, will give more attention to constructive engagement



than airlines, for which airport charges may be around 5% of costs, and shorter-term issues may predominate.”⁸

10. If this is true of the Constructive Engagement process, as Mr Toms states, it must surely be equally true of the Quinquennial Review consultations.
11. BAA’s level of efficiency, both in terms of capital expenditure and manpower use, leaves much to be desired, as one would expect from a monopolist. What one should not expect is that an extensive and expensive regulatory procedure should have so little effect. The reputation of BAA as a provider of poor quality customer service is as low today as it was when the company was privatised, especially at Heathrow and Gatwick. Virgin Atlantic has in the past described Heathrow as a Third World airport and a First World shopping mall, and we do not renege from that view. It appears that pressure from the regulator has done little to improve this situation.
12. The security emergency of August 2006 served to highlight many of BAA’s deficiencies. The emergency was unexpected and affected both airports and airlines. No-one can reasonably blame BAA for the initial problems experienced. However, airlines quickly adjusted to the new situation; BAA did not. It is totally unacceptable that at Gatwick, for example, security queues can still frequently snake through the South Terminal as far as the railway station, several months after last August’s emergency. Heathrow is little better. The lack of planning and flexibility on the part of BAA is disappointing, but not a surprise. Similar shortcomings are only too evident in many of BAA’s other operations. Unfortunately, it is the airlines and their customers who pay for this inefficiency, in the form of higher charges and poor service quality.
13. There have been two responses from the CAA to the security problems at Heathrow and Gatwick. First, the CAA approved the suspension for a period of penalty payments by BAA for failing to meet security service standards, thereby doubling the impact of the emergency on airlines and rewarding BAA



for its lack of preparedness and inefficiency. If the CAA really did have no alternative because of the terms of the Q4 settlement, that only reinforces the view that the Q4 settlement was a very poor deal for BAA's customers.

14. Secondly, the CAA has appeared to share BAA's view that an ability to react more effectively to unforeseen emergencies, such as last August's, would entail higher costs, and therefore higher charges for the airlines. Virgin Atlantic does not accept this argument. It ignores the substantial opportunities available to improve BAA's efficiency, especially its use of manpower. The airlines were critical of BAA's security efficiency long before August 2006. Yet no action appears to have been taken by either BAA or the CAA. It is relevant to compare the recent actions of British Airways, operating in a competitive marketplace, to address its inherited industrial practices in a highly unionised environment with the apparent unwillingness of BAA to introduce reforms.
15. As a customer of a monopolist, Virgin Atlantic faces daily problems in dealing with BAA at Heathrow and Gatwick. These problems are in many ways just as important as those dealt with during the Quinquennial Reviews. However, despite the inequality of power between BAA and each of its airline customers, there appears to be little enthusiasm, or even interest, on the part of the CAA to get involved. This has been a recurrent frustration. A recent example highlights the issues.
16. BAA has built a new car park at Heathrow Terminal 3, which is used by Virgin Atlantic, and removed the old one. The new car park has been a disaster, a fact acknowledged by BAA in meetings with Virgin Atlantic. Despite extensive experience in the construction of airport car parks, BAA has managed to provide a facility that has resulted in a very low level of customer service. At peak times there is virtual gridlock. There are two issues for Virgin Atlantic here. First, our customers are not receiving the level of service to which they are entitled, and for which we pay, which to some extent inevitably



reflects poorly on us and potentially puts us at a competitive disadvantage. Secondly, correcting the car park's shortcomings will be expensive. Virgin Atlantic is concerned that, unlike in a competitive market, BAA will seek to pass on the costs of its mistakes to its customers.

17. Virgin Atlantic wrote to the CAA outlining the problems experienced with the new Terminal 3 car park and our concerns for how BAA might react. The response from the CAA was overwhelming in its silence. Eventually we contacted them again to ask what was happening. As a result the CAA decided to forward our comments to BAA, who responded at length defending its actions. Virgin Atlantic's interpretation of further contacts with the CAA is that there is a lack of enthusiasm and real interest in taking this matter forward. This is very disappointing. We would not suggest that the construction of a new car park is as important as Terminal 5, but it is nevertheless of importance to the airlines and their customers who are forced to use Terminal 3. If the CAA is not interested, what protection does Virgin Atlantic have against the abuse of BAA's monopoly powers?

18. The letter from the CAA to BAA in connection with Virgin Atlantic's complaint and BAA's response are attached to this submission (Appendices A and B). BAA's letter raises two particularly interesting issues. First, many of the arguments advanced by BAA in its defence do not correspond to the points made by BAA in private exchanges with Virgin Atlantic. It is not clear to us whether it is normal BAA practice to present one set of arguments to its customers and another, different set to the regulator. Nor is it clear how far the CAA normally goes to challenge all of BAA's arguments.

19. Secondly, the letter from BAA asserts: "... it is very encouraging to see that the specific QSM [Quality of Service Monitor] recorded on this car park since its opening showed a significant improvement over the old Terminal 3 car park and is currently the highest performing car park across all QSM categories within the Heathrow campus and indeed across the South East



Airports.”⁹ This statement beggars belief and surely should have set alarm bells ringing in the CAA. If it did, there is no visible evidence of it.

20. All the evidence available to us points to the new car park providing a substantially inferior level of service than its predecessor, and being poorly designed compared with other BAA airport car parks. To assert that QSM evidence shows it to be the best performing car park across BAA’s South East airports can only mean one of two things: either the QSM data are being manipulated to distort the actual results, or they are failing to measure the real world. We assume that BAA is not seeking deliberately to mislead anyone. The suspicion, therefore, must fall on the validity of the QSM data.
21. This has much wider relevance than just Terminal 3’s new car park. It has been obvious for some time that there is a discrepancy between the QSM results reported by BAA for such infrastructure as escalators, moving walkways, lifts, security checkpoints, etc. and most people’s own experiences. The whole QSM process requires investigation if service quality at BAA’s airports is to be improved. This surely is an area where the regulator should take the initiative, and indeed should already have done so.

II. Overview

22. Virgin Atlantic welcomes the opportunity to comment on the CAA’s initial proposals for the price control review at Heathrow, Gatwick and Stansted airports for the fifth quinquennium (Q5). In this response, Virgin Atlantic will limit our comments to Heathrow and Gatwick – the two London airports at which we operate. We will leave comments on Stansted to those airlines that operate there.
23. In our view, the current regulatory regime does not work. The airports that operate under it do not represent good value for money and the regime produces the wrong sort of behaviour. The regime has led to massive under-

investment so that the condition of the airports is shameful. There has been particularly widespread dissatisfaction with the performance of BAA over the past year. In Virgin Atlantic's view, the emphasis of this Review should be to avoid a repeat.

24. For the first time since BAA was privatised, the current regulatory period (Q4) saw BAA underperform the assumption of its price control, earning significantly less than the cost of capital assumed by the CAA.¹⁰ Seen in these terms, regulation has helped deliver a negative sum outcome – the airport operator is worse off (although not its shareholders, who were bought out by Ferrovial at a significant premium to the Regulatory Asset Base) – and so are airlines and passengers.

25. In its initial price control review proposals, the CAA rightly draws attention to the unacceptable situation following the August 2006 security threat, scenes which were repeated the following December as Heathrow struggled to recover from bad weather. However, the CAA's suggested remedy – increasing the level of operating cost assumed for the next regulatory settlement (alluded to in para 8 of the Executive Summary) – illustrates the limitations of its approach. The starting point for this review should be that the *status quo* is not delivering anything approaching an acceptable outcome for airport users. This is not just an anecdotal view:

- a) The Airport Council International Survey of passenger satisfaction, cited by the OFT in its investigation into BAA, ranked Heathrow 56 out of 58 airports.¹¹
- b) The Eddington report ranked Heathrow as the worst airport in Europe for delays, with 28% of flights delayed by 15 minutes or more.¹²

26. It is Virgin Atlantic's belief that these outcomes do not sit well with the CAA's statutory duty to promote the efficient operation of airports.¹³



27. Airport inefficiency and poor quality service are a result of the airport operator transferring congestion costs onto airport users. Virgin Atlantic's objective is to deliver excellent customer experience. Delays caused by the airport operator damage our ability to serve our customers, damage the Virgin Atlantic brand and require us to build more redundancy into our schedules and have more aircraft, support equipment and crew, resulting in higher costs, some of which inevitably are passed onto passengers.
28. Several recent Government reports have confirmed that the performance of BAA's London airports, in particular Heathrow, is vital to the continued competitiveness of London as a world financial centre, and the continued inefficient operation of Heathrow is a threat to the UK's economic performance. The costs of BAA's inefficiency are transferred to airport users and more widely through the economy.
29. As the Eddington report makes clear, this is because of the lack of redundancy in the system, which means that under a little pressure, the whole system becomes unstable.¹⁴ The report points out that container ports (which operate in a competitive environment) are most efficient at around 65% of capacity; 'when use exceeds this level, congestion and delays can occur at an exponential rate, imposing extra costs on shipping companies, hauliers and port operators.'¹⁵
30. The traditional response of BAA has been to make excuses for its performance by transferring all the blame onto the planning system. Virgin Atlantic accepts that every study has shown the planning system to be a constraint. However, to blame the planning system for all BAA's shortcomings would ignore action, or lack of it, by BAA.
31. A fundamental problem is the misalignment of what drives airline value creation and the airport charging structure: BAA is not paid to run an efficient airport. Volume-based charging incentivises BAA to sweat airport assets by



operating at the limit of their capacity. Contrary to the CAA's thinking, airport inefficiency is not a function of the *level* but of the *structure* of charges. Airport users get what the CAA says they should pay for.

32. The CAA's proposed remedy of rewarding BAA with more revenue would delay correcting the fundamental cause of the problem, as it would reduce the pressure on BAA and its new owners to change its business model and become a customer-focused organisation.
33. The current regulatory settings, within the context of BAA's continued monopoly, are neither delivering airport users value for money nor efficient airports. The CAA's thinking, based on in its December 2006 initial proposals, is to downgrade potential structural remedies, arguing that simply altering the value of some regulatory variables will drive airport performance to an acceptable level. Virgin Atlantic cannot emphasise strongly enough that this course is not one best calculated to further the reasonable interests of airport users.
34. It is not inevitable that Britain's two largest airports should perform so badly. That they do, with performance at Heathrow being particularly unacceptable, is a function of regulation and the continuation of BAA's monopoly of London airport capacity.

III. The CAA's Proposed Approach

35. The CAA places great weight on the stability and consistency of regulation from one review to the next. The aim of reducing regulatory uncertainty clearly has some value. But this pre-supposes that the current direction of regulation is delivering satisfactory – and improving – outcomes. Virgin Atlantic does not believe that this is the case.

36. It would not be rational to take the position, as the Initial Proposals document implicitly does, of assuming more of the same will deliver an acceptable outcome to airport users when it has not up until now. The decision by the OFT to launch a market investigation and to consult on whether to refer the BAA monopoly to the Competition Commission is evidence that the *status quo* is not working to the benefit of airport users.
37. One of the few positive outcomes of the last regulatory review was confirmation that the CAA has switched from group to stand-alone regulation. Virgin Atlantic welcomes the continuation of separate regulation for each of BAA's designated airports, rather than as a system, and fully supports the CAA's conclusion that there is "no compelling evidence to cause it to consider reverting to system regulation for the forthcoming price control period 2008-2013"¹⁶. Already this approach is having the effect of forcing investment to be scoped and scaled to the needs of Stansted's market. Virgin Atlantic also welcomes the CAA's proposals to extend and deepen the application of this principle so that the specific regulation proposed for each airport would be more closely tailored to the circumstances of that airport. Indeed, for reasons outlined in section II. vi. below, Virgin Atlantic believes this approach should be adopted to investment within airports.
38. Virgin Atlantic also fully supports the CAA's proposal to proceed on the basis of the present definition of airport charges and the single till – the second positive outcome of the Q4 review..
39. On the scope of the regulatory till, Virgin Atlantic notes that BAA wants greater incentives to grow commercial revenues and to remove some activities (long-term car parking, bureaux de change and advertising). In its Initial Proposals document, the CAA states that it is minded to retain the current approach to commercial revenues whereby BAA retains the variation (both positive and negative) between forecast and outturn. We do not disagree with



this provided the forecasts are adequately audited and verified by the CAA. Airlines are reliant on the expertise of the CAA to perform this task.

40. Virgin Atlantic appreciates the work carried out by the CAA to scrutinise BAA's projections and we agree with the conclusions of several of the studies that there is realistic room for improvement by BAA. Evidence of BAA's performance during Q4 shows that RPI-X regulation provides weak incentives to improve operational performance. We therefore support giving BAA a "material challenge" to its projected costs and revenues at both Heathrow and Gatwick.

41. Throughout its Initial Proposals document, the CAA asks the question of airlines: do you want to see charge minimisation, or are other issues such as service quality and capacity equally or more important? Virgin Atlantic does not see this as a trade-off. We believe BAA should be delivering better service and sufficient capacity without the need to raise airport charges.

42. Virgin Atlantic supports the CAA's proposal to reduce its estimates of the regulated airports' cost of capital. Further analysis on this is provided in section IV below. Strategically, the proposal is certainly a move in the right direction. The principal opportunity for BAA to earn additional profits centres on the cost of capital arbitrage by exploiting the wedge between the regulator's estimate of the cost of capital and the firm's actual cost of capital, demonstrated by the price paid for BAA by the Ferrovial consortium. Unless the cost of capital is re-set to fully capture these gains, and because structural remedies could be introduced to eliminate the cost of capital on new investment, setting price caps at a premium to the firm's actual cost of capital is of no benefit to airport users and would be contrary to the CAA's statutory duties.

III. i. The disconnect between the reliance placed on incentive-based regulation and outcomes being achieved

43. The theory of incentive-regulation is that a monopoly is incentivised to identify ways of improving financial performance, the benefits of which are retained by the monopoly company within the price cap period and are then transferred to its customers at the next review. Thus in its December 2005 Policy Review paper, the CAA explained the tension between *anticipating* efficiency gains and *incentivising* them, so that “incentives from the price control framework themselves could be expected to operate to promote the appropriate level of efficient operating expenditure, leaving profits with the airport operator.”¹⁷
44. A year on, in the Initial Proposal document, the CAA has signalled a clear preference for incentivisation over anticipation. Virgin Atlantic would dispute that the empirical evidence supports such a position. In fact, in our view, there is a clear disconnect between the CAA’s preference for incentives and the reality.
45. In Q4, there will be no cost savings to transfer to airport users. Based on the CAA’s analysis of BAA’s performance in Q4, in 2005/06 BAA over-spent its regulatory assumption by £91.0m at Heathrow and Gatwick, even though passenger numbers were significantly lower than forecast at both airports.¹⁸ At Heathrow, operating expenditure rose by £116m between 2002/03 and 2005/06 – a 23.3% increase. This compares to a 7.0% increase in passenger volumes over the period and inflation of 8.3% - totalling 15.3% (see table below)

LHR opex increase 2005/06 on 2002/03

	%
Pax	+7.0%

RPI	<u>8.3%</u>
Total	15.3%
Total opex	+23.3%

Source: Table 10.20, CAA (Dec 2006)

46. BAA's argument is that the variance in forecast and actual costs reflected 'higher staff costs due to the increased level of security staff required at each airport following new DfT security directives' does not withstand scrutiny.¹⁹ It is Virgin Atlantic's view that the airport operator could have anticipated increases in airport security and should continue to expect differing levels of security dependent on the risk presented. How is it that Stansted's operating expenditure in 2005/06 was £20.1m *lower* (18.0%) than the regulatory determination when passenger numbers were 9.5% *higher*? The implication of BAA's argument is that Stansted is a less secure airport, which is clearly not the case.

47. The evidence strongly indicates that BAA can control its costs when forced to do so and does a poor job of control when it is not under pressure. One difference between Heathrow and Stansted is that by 2005/06, Heathrow revenues were slightly ahead of forecast whereas Stansted's were 22.5% lower. An interpretation that better fits the evidence than blaming enhanced security requirements is that a revenue shortfall forced BAA to reduce Stansted's costs against its regulatory baseline, whilst the buoyancy of Heathrow's revenues reduced the pressure on BAA to tackle its cost base.*

48. On the basis of this evidence, the implications of this for the current price review are:

* Another factor explaining part of the different performances of the two airports could be passenger volume growth. If so, this has implications for the CAA's views on staff productivity. However, the CAA Initial Proposals do not analyse the evolution of Stansted's costs, an analysis which could well suggest a staff/passenger elasticity closer to zero than one).

- rewarding BAA with more revenue (under the CAA's preferred 'incentive' approach as opposed to fully anticipating efficiency gains) reduces the pressure on BAA to improve its cost performance. In other words, the incentive approach requires airport users to pay the costs of BAA's inefficiency;
- by contrast, by forcing BAA to improve its cost performance, a regulatory approach that anticipates improved cost efficiency is better calculated to meet the CAA's statutory duties.

49. This is consistent with the findings of the consultants retained by the CAA to examine BAA's costs:

- examination of airport process efficiency found that 'all of the processes examined had some potential for efficiency improvement'²⁰;
- even after stripping out IT spending linked to construction projects, BAA is a high spender on IT but had not demonstrated that this IT spend was driving productivity gains²¹;
- high cost security staff (a big driver of costs) combined with absentee rates 86% higher than the CBI average²².

50. In fact, the CAA concluded that "taken together, the results from the studies suggest that it is reasonable to assume that BAA has some scope to improve efficiency from current levels".²³ In our view, this is an understatement. The studies identified potential efficiencies of between 1% and 7%, yet the CAA is proposing that BAA make savings of 1% per annum. This would appear to be unduly lenient and easy to achieve. The CAA, if it is to be an effective regulator, must increase the level of expected efficiency gains.

51. The CAA questions how far efficiencies can feed into cost reductions, as opposed to better service delivery to customers of expected service levels.²⁴ As previously stated, Virgin Atlantic would dispute that this is a choice. Both can and should be delivered.

52. The CAA have added an additional 0.5% of gains which result from the scope for continuous improvements in efficiency (or “frontier shift”²⁵), but even then this additional 0.5% is removed in the light of the belief that “BAA’s operating cost base is significantly affected by labour costs”.²⁶ The CAA therefore “considers that it would be more appropriate to assume that operating cost efficiency should improve at area of 1% per annum in each year from 2005/06 until the end of Q5”.²⁷ Given the possible efficiencies that have been identified in the studies carried out for the CAA, Virgin Atlantic finds this conclusion to be perverse and unjustifiable and yet further evidence of the failure of the CAA to effectively regulate BAA. We trust that the Competition Commission will examine this issue in detail.

53. In addition, Virgin Atlantic would question why BAA must provide all of the services within an airport. The over-priced installation of CCTV cameras in Terminal 5 is just one recent example of BAA performing tasks that could, and should, be performed by specialist companies. Virgin Atlantic would also suggest that the case for outsourcing the security search function should be examined.

54. This issue was summarised by Dr Harry Bush, the CAA’s Director of Economic Regulation, who acknowledged that whilst in some areas BAA was a good performer, the challenge was to bring the rest up to the standard of the best, as well as to seek continuous improvement generally.²⁸ Yet nowhere in the current review process does the CAA ask the question: Why hasn’t incentive regulation already raised BAA’s performance up to the level of the best and why hasn’t it spurred the continuous improvement the CAA rightly seeks? If, as the CAA says, this is the challenge, the CAA’s Initial Proposals do not provide the answer.

III. ii. Assumption of fixed trade-off between cost and service quality

55. Underlying much of the CAA's approach on the issue of operating expenditure is the assumption that there is a fixed trade-off between cost and service quality. Thus, higher operating expenditure will lead an efficient airport to delivering higher standards. This premise rests on the competence of the airport operator. The notion of a positive correlation between standards and costs has been disproved by Heathrow's performance during Q4, when costs rose but standards did not, if anything falling back.
56. As discussed above, airport income is not linked to airport efficiency (in terms of reliability and on-time performance), so there is no redundant capacity with the result that Heathrow is possibly the most inefficient airport in Europe. Throwing more operating expenditure at the problem therefore would not address this cause of Heathrow's inefficiency or the problems created by management ineffectiveness. Furthermore, the CAA ignores experience from the business world. Efficiently run businesses, from Tesco in retailing, to Dell in computing to Toyota in car manufacturing, are efficient across all dimensions, including costs, customer service and business processes, enabling them to offer customers low prices and high quality. It is why Virgin Atlantic can offer its customers a better product while not charging more than our principal competitors.
57. By contrast, high costs are a result of slack management and bureaucratic business processes, resulting in businesses that are inefficient across all dimensions. The evidence assembled by the CAA shows that BAA falls into the second category. It is therefore bizarre for the CAA to claim that 'underlying productivity growth has been relatively strong at Heathrow and Gatwick in recent years, suggesting the scope for further – as yet unidentified – efficiencies is likely to be correspondingly limited.'²⁹
58. This assertion flies in the face of the CAA's own evidence. To distinguish between volume and efficiency effects, Manchester airport used a staff/volume

elasticity assumption of 0.33 at the Competition Commission’s last review. The table below assumes an elasticity of 0.3

Annual productivity growth increase (after 0.3 elasticity vol. adjustment)

	Q3	Q4
Heathrow	1.6%	-0.1%
Gatwick	2.5%	2.3%

Source: Tables C-6 & C-7, CAA (Dec 2006)

59. As the table shows, far from Heathrow’s productivity growth being ‘relatively strong’ (in the CAA’s characterisation), productivity growth in Q3 was mediocre, and in Q4 the *absolute* level of productivity is forecast to decline. The CAA then goes on to claim that changes to DfT security requirements are likely to have had an impact on airport productivity.³⁰ Again, the evidence contradicts the CAA’s assertion. As the table below shows, in the forecast for Q4, security staff productivity *rose* by 2.0% a year at Gatwick but *fell* by 3.0% a year at Heathrow.

**Security staff: Annual productivity growth increase
(after 0.3 elasticity vol. adjustment)**

	Q3	Q4
Heathrow	-1.1%	-3.0%
Gatwick	-3.6%	+2.0%

Source: Tables C-8 & C-9, CAA (Dec 2006)

60. Obviously, DfT security requirements that are common to both airports cannot explain the difference between the two airports, not just in the *level* of productivity growth, but in its *direction* – why in Q4, Gatwick’s security staff performance improved but Heathrow’s deteriorated. It is unfortunate that the CAA has not investigated this.

61. The CAA says its task is ‘to reach an objective view of the expenditure that a competent and well-managed company would require.’³¹ The CAA’s conclusions on productivity therefore matter for setting the level of the Q5 price cap. Virgin Atlantic has no confidence in the CAA’s assertions on BAA productivity contained in its Initial Proposals, particularly with respect to Heathrow, which are not supported by the evidence it presents. We believe that price caps based on this analysis could not meet the CAA’s aim of reflecting the expenditure of a well-managed company and request that the Competition Commission conduct its own review of BAA airport productivity.
62. Evidence of Heathrow performance in Q4 in particular indicates that the airport is not well managed. Extrapolating current performance and incorporating the results into the Q5 price cap is therefore unlikely to be a course of action calculated to further the reasonable interests of airport users, because the income in excess of that required by a well-managed, efficient operator would enable Heathrow management to protect their cost base. Instead, the CAA should set demanding price caps designed to bring about a step-change in BAA’s performance and force it to amend its business model and become a customer-focused business.

III. iii. Quantum of Risk and Service Standards

63. At the Q4 review, the Competition Commission said that “in failing to conduct themselves so as to make prices paid sufficiently reflect the level of service provided, HAL and GAL have pursued a course of conduct which may be expected to operate against the public interest. The adverse effect of this conduct is that prices do not reflect the quality of service provided to the extent that would occur in a competitive market.”³² Virgin Atlantic does not believe that anything has changed during Q4 to address this short-coming and



we do not believe that the current regime has satisfied this public interest finding.

64. In the Initial Proposals document, the CAA suggests keeping the amount of risk under the service quality at broadly 3% of airport charges. Virgin Atlantic is disappointed that the CAA is not proposing an increase to this percentage. In our view, this amount is insufficient to motivate the airport operator to deliver the passenger experience that is required and does not compensate the airlines sufficiently for the financial impact when BAA fails to meet the required standards. There are plenty of examples to show that poor service quality continues despite the 3% of charges currently at risk within the scheme. Virgin Atlantic would support an increase to 10%.

65. In its submission to the CAA, BAA has proposed that the scheme should allow for bonuses for service quality above the target as well as penalties for below target quality. Virgin Atlantic opposes this request - good performance in one area does not necessarily cancel our poor performance in other areas.

66. As already indicated in Section I above, Virgin Atlantic has doubts as to whether the current QSM accurately captures the "passenger experience" as it is intended to do. In addition, the CAA needs to ensure accurate measurement of service levels. Airlines do not have confidence in BAA's self-measuring.

67. Virgin Atlantic rejects BAA's proposal that airlines should commit to a check-in standard. We believe this would be unnecessary because airlines are subject to market forces and operate in a competitive environment. We welcome the CAA's conclusion that there should not be rebates from airlines that do not meet performance standards at the airport.

68. Virgin Atlantic agrees with the CAA's recommendation that transfer security queuing and control post queuing should be included within the Service Quality Regime (SQR).

69. The impact of problems with central security queuing on the passenger experience and on airline operations raises fundamental questions about the level of contingency. Virgin Atlantic believes that the standards that the airports should be aiming for in “normal” circumstances should be raised in order to allow a greater in-built capacity to meet any future additional requirements. We do not accept that such an increase in standards must necessarily have an impact on costs.

70. The airlines have proposed an increase in the standards of cleanliness, wayfinding and flight information at Heathrow. Again, we strongly reject BAA’s claim that such an increase may require higher operating and capital expenditure. We also reject the CAA’s assertion that the issue of increased standards is “based on the trade-off between standards and costs”³³. It should be possible for BAA to increase standards while maintaining or even reducing costs.

III. iv. Excessive reliance on Constructive Engagement

71. Initiated during the current review, Constructive Engagement (CE) is a welcome development. The CAA has clearly relied upon the outcomes of CE to shape its initial proposals. Virgin Atlantic has been an active participant in the CE process at both Heathrow and Gatwick. CE has delivered several wins and is a useful way to make progress on non-contentious issues that deliver better outcomes for airport users and, as a consequence, there have been successes. For example, the CapEx efficiency workstream demonstrated the benefits of a collaborative approach and an open and honest exchange of views led to agreements on several issues.

72. However, it has to be recognised that CE also contains significant flaws. CE was aimed at filling in the gaps in the CAA approach to Q4. Airlines do not have sufficient expertise or resources to perform the role of the CAA. Virgin Atlantic would question whether using airlines to validate BAA's claims and assumptions is effective. If the success or otherwise of CE is demonstrated by BAA's improved behaviour, then the results are at best mixed. CE cannot be a substitute for robust action by the CAA to promote the interests of airport users. In its Initial Proposals, the CAA appears to think it can:

'Evidence of sustained closer co-operation between airport and airlines could provide a basis for the CAA to set lower realistic targets for Heathrow's and Gatwick's net costs which would be recovered through airport charges. *The challenge for airlines* at each airport is to demonstrate clearly to the regulator their willingness to work with the airport operator towards more efficient and effective joint working' (emphasis added).³⁴

73. Virgin Atlantic takes the opportunity here to state categorically: We will intensify our efforts through CE to deliver higher standards for our customers. That is what we are in business for. But the CAA's formulation cited above has it exactly the wrong way round. CE requires co-operation between the airport operator and airlines. Instead of pointing to the airlines, which already have clear incentives to improve airport performance on behalf of our customers, and threatening them with higher than necessary airport charges, the CAA should be reducing Q5 operating costs to encourage the airport operator to go the extra mile to co-operate with its customers.

74. Perversely, the CAA's 'challenge to airlines' gives the BAA an incentive not to co-operate with its customers. For this reason, Virgin Atlantic believes the CAA's position is not one calculated to promote the reasonable interests of airport users. Elsewhere in its Initial Proposals, the CAA demonstrates that it understands the reality of the situation. Whilst acknowledging the value of drawing on airport and airline expertise, the CAA says it recognises that:

“... in practice the debate on costing the programme is, in some areas, “zero sum” in nature, and therefore the efficient process for its development, and definition, does not always lend itself to airport/airline discussion.”³⁵

75. For this very reason, were the CAA to set traffic charges higher than those required by an efficient, well-managed operator on the grounds of a lack of co-operation between airlines and the airport operator, Virgin Atlantic believes such a decision by the CAA would be irrational, arbitrary and perverse.

76. The CAA requires closer working and joint planning through CE between BAA and the airlines, but the relationship is not an equal one. This creates considerable challenges for airlines. Virgin Atlantic does not believe that the CAA recognises the huge time and cost commitment for airlines of CE. BAA can, and does, throw massive resources at CE. In addition, the CAA assumes airlines will be co-ordinated in their discussions with airports. However, airlines are often competing against each other for capital investment to be spent on their own needs. For example, the largest airline at Heathrow has got the terminal infrastructure it wanted; other airlines are paying for that and now want equivalence. BAA is using this to create a long shopping list with huge capital costs.

77. If CE is to be successful and, as stated above, Virgin Atlantic remains committed to it, there at least needs to be more transparency. The CAA has stipulated the minimum information that should be provided. However, that is as far as BAA goes. In Virgin Atlantic’s view, BAA is not committed enough to the process of sharing information at a sufficiently deep level to achieve a meeting of minds. For example:

- BAA has never explained how CapEx projects impact on charges, so it is difficult for airlines to challenge and engage;

- BAA amended its traffic forecasts in January 2007. There has been no transparency about the assumptions upon which the new forecasts are based.

78. Constructive engagement “relies upon the ability of airlines and the airport operator to negotiate on, for example, the trade-offs between the level of capital investment and the associated service quality outputs.”³⁶ If judged by this, CE is failing.

III. v. Downgrading the efficacy of structural remedies

79. The CAA states that price control regulation is ‘always an imperfect substitute for well functioning competition and can have adverse side effects and costs.’³⁷ It then goes on to make a strong case for de-regulating Stansted. Yet when it comes to Heathrow and Gatwick, the CAA’s answer is more of the same.

80. In its December 2005 review of airport policy issues, the CAA argued that the transactional costs of greater competition within airports outweighed the benefits.³⁸ If regulation of the BAA monopoly were successfully delivering high standards and efficient airports, the need for structural remedies would be correspondingly reduced, but it is not.

81. In its analysis of structural remedies, the CAA fails to take into account the costs of the existing system of regulation. Whilst the CAA noted that competition in the provision of terminal capacity and services is unlikely to mean that the CAA could reduce the extent of regulation, it failed to recognise that it would change the nature of regulation.³⁹ Because of the absence of competition, the current system of regulation is about second guessing prices from a non-existent market. The focus of regulation would change from the impossible task of efficient price-setting to the realistic one of setting the rules and being the referee of them.

82. Inevitably, the record of regulators second guessing markets and setting prices is not good. However, economic regulation in Britain has scored major successes where it has intervened to impose competition and create markets, notably in telecommunications and energy distribution. Changing the focus of the CAA's role from setting prices to setting the rules of the game would raise the quality of regulation and deliver better outcomes for airport users.

83. There are four initiatives which would cumulatively, over time deliver huge benefits to airport users. They are mutually consistent and reinforcing. Taken together, they would define a new path for the development of Heathrow and Gatwick:

a) Separate terminal ownership. Virgin Atlantic's experience of terminal competition at New York's JFK is entirely positive. Switching terminals has resulted in major service and customer benefits. Of course, realising the full benefits of terminal competition requires spare capacity and one of the principal benefits of terminal competition over time is the provision of more capacity.

What the CAA over-looks is that the absence of spare capacity is the direct result of the lack of competition – a chicken-and-egg situation which the CAA proposes to deal with by sitting on its hands. Indeed, the CAA actually sees disbenefit in separate ownership as it would reduce BAA's control over the provision of future capacity.⁴⁰ The CAA appears not to recognise that monopolies charge more and supply less.

A separate owner of Heathrow T5 would have an incentive to accelerate the T5 second satellite (providing an additional 13 stands) and not delay it for 3 years as BAA is doing. It would also face stronger incentives to build a lower cost facility. Similarly, if the development of Heathrow East were in the hands of a new owner, it would have a much stronger incentive to increase capacity than a monopoly owner. The failure of BAA to maximise capacity in this way is a clear detriment to the interests of airport users.

b) ***Competition to finance and develop new capacity.*** According to the CAA, the cost of capital is the most significant variable in its price cap assessment.⁴¹ The CAA's proposal to cut the cost of capital in the current review is likely to be strongly resisted by BAA and be accompanied by threats to withhold investment unless it obtains a settlement more in its favour.

In its cursory examination of the case for requiring competition for the financing of new capacity as a structural remedy, the CAA stated in its December 2005 policy review that RPI-X provided ongoing incentives to reduce capital costs over time. Therefore, the CAA argued, the price cap would not directly affect an airport operator's decision whether or not to invite third parties to build new capacity.⁴²

This is quite wrong. The airport operator has no incentive to outsource airport financing as to do so would eliminate its ability to profit from the cost of capital arbitrage on new investment created by the regulatory system. Neither is it the case that there are incentives over time to reduce capital costs. How can they be reduced once they've been incurred?). Together, this constitutes one of the principal weaknesses of the existing regulatory regime.

This will carry on for as long as the regulator's assessment of the cost of capital is above the regulated firm's. In fact, if the CAA retains its view on the risks to investment of too low a rate of return, this situation will persist indefinitely. By contrast, a requirement to put the financing of new capacity to competitive tender removes the problem by introducing powerful incentives for capital efficiency to the benefit of airport users.

c) ***Competitive tendering for terminal operation.*** By contrast to its position on incentives for capital efficiency, the CAA is correct in stating that RPI-X provides incentives for contracting-out terminal management if it delivered efficiency gains, because regulation is designed to provide incentives for cost efficiency.⁴³ Yet the big question arising from

performance in Q4, unaddressed by the CAA, is: Why did these incentives not improve BAA's performance, especially at Heathrow?

The effectiveness of incentives in improving performance is correlated with management competence and the capability of the regulated firm. The evidence of Q4, documented but not analysed by the CAA, is consistent with BAA being a poor manager of Heathrow. Therefore reliance on incentives to raise opex efficiency is not a course best calculated to further the reasonable interests of airport users.

By accessing a much larger universe of potential operators through competitive tendering and selecting the most competent, the benefits of contracting-out would include:

- lower costs;
- better alignment of planned service standards with customer needs at each terminal;
- innovation in service delivery; and
- greater transparency, with the ability to compare performance of different operators at each terminal.

d) ***Restructuring traffic charges.*** At present, traffic charges are a residual of the aggregate of income from airport and retail services that are subject to specific prices. Unbundled pricing is generally economically more efficient, enabling individual customers to make their own trade-offs, and provides suppliers with better calibrated price signals. Separate charging for each terminal is an extension of the logic that led the CAA to adopt stand-alone airport regulation.

The current charging structure is a major economic driver in ensuring Heathrow's high level of inefficiency and delays. This is because volume-based traffic charges lead the airport operator to operate Heathrow at the limit of its capacity, leaving no redundancy. It would better relate the costs of providing the level of service required by each airline and enable individual airlines (if they chose) to pay for spare stands to improve on-time performance and efficiency.

Virgin Atlantic recognises that whilst unbundled pricing promotes efficiency and enables the airport operator to better target investment, it is unlikely to be welcomed by British Airways, which would bear the full cost of operating from Terminal 5, the capital costs of which are widely recognised to be far in excess of the industry norm. These excess costs should be deducted from the T5 Regulatory Asset Base and be treated separately as a ‘monopoly legacy cost.’

IV. Required Regulatory Action

84. A consistent weakness of the CAA’s approach thus far is its assumption that it is regulating an abstract, hypothetical firm that efficiently responds to regulatory incentives. Contrary to these assumptions, the evidence strongly suggests that loose price caps are associated with poor cost control, whereas revenue shortfalls (as occurred at Stansted in Q4) are associated with improved cost efficiency compared to the assumptions used in the previous regulatory settlement. Furthermore, the current approach relies on a flawed use of incentive regulation to correct performance deficiencies caused by the absence of competition.

85. The CAA’s Initial Proposals are inadequate in both regards. By offering a generous settlement on opex, they reward BAA’s failure to improve cost efficiency with more revenue and they do nothing to address the structural causes of poor performance. Virgin Atlantic believes that regulatory action best calculated to further the interests of airport users requires:

- tight price caps which force BAA to improve cost efficiency
- action to address the structural causes of poor performance.

86. The OFT is examining possible structural remedies. This does not absolve the CAA from executing its statutory duties under the Airports Act, which

provides a mechanism via public interest references to the Competition Commission as part of the price cap review process. A finding by the Competition Commission is implemented by the CAA amending the relevant airport's permission to levy traffic charges. There is some over-lap between the OFT market investigation and the CAA-led price cap review. Virgin Atlantic welcomes this. From the point of view of airport users, it is far better to have an over-lap than a gap.

87. This section focuses on the public interest references which Virgin Atlantic believes are most appropriate for the CAA to make, given the parallel OFT inquiry. These can be framed in terms of remedying a course of conduct which has operated, or is likely to operate, against the public interest:

- a) ***requirement for competitive tendering of terminal operations (Heathrow)***. Heathrow cost efficiency has been especially bad during Q4, and the heightened security requirements in August 2006 demonstrated the extent of its operational weaknesses. These weaknesses operate and can be expected to operate against the public interest. A requirement to outsource management of terminals to competent operators by competitive tender is therefore an appropriate remedy;
- b) ***requirement to outsource funding for new capacity (Heathrow)***. BAA's role as a monopoly supplier of finance to its airports means that the regulator relies on incentives (a lenient price cap settlement) and enables the airport operator to withhold investment to obtain a better settlement. This works against the public interest as it results in traffic charges being higher than necessary and investment being lower. In its Press Release responding to the CAA's Initial Proposals, BAA used its monopoly position to implicitly threaten future investment:

“Taken at face value, the incentives in this opening proposal are unsatisfactory and give cause for significant concern. Uncertainty over incentives, coming at time when we face a number of major investment decisions, may directly affect the quality of the passenger experience for years to come.”⁴⁴



A public interest finding along these lines gives the CAA the ability to neutralise any threat of an investment strike by the airport operator and is better calculated to meet the CAA's Airport Act duties of promoting efficiency and timely investment, thereby furthering the interests of airport users.

88. BAA's takeover by ADI, a company controlled by Ferrovial, provides an additional regulatory challenge.

a) ***Implications of high debt levels for airport users.*** ADI borrowed £7.7bn and assumed £4.4bn of BAA debt, making a total of £12.3bn – considerably more than BAA's Regulatory Asset Base of around £10bn. In addition, Ferrovial borrowed £2bn to finance its 61.8% equity stake in ADI. (See Appendix B)

As a cash-strapped owner, Ferrovial requires a much higher level of cash extraction from BAA than was needed by the previous capital structure. Before the take-over, BAA was extracting just over £200m a year (2006 - £231m) in dividends on approximately £6bn market value of equity. Ferrovial borrowed £2,018m to finance its stake in ADI which has to be repaid in 8 years, and at the 3rd July 2006 investor presentation Ferrovial told analysts that it did indeed expect to repay this debt in 8 years.⁴⁵

This implies ADI needs to distribute over £400m a year to its shareholders – nearly double what the BAA shareholders got – on an equity base 2/3 the size of the old BAA. Indeed a note on Ferrovial by Merrill Lynch forecasts an average BAA dividend to ADI of over £½bn a year over the next 5 years.⁴⁶

During the BAA bid, the CAA stated: 'It is open to the CAA to specify in such a [public interest] reference any course of conduct, including any that might relate to or arise from financial transactions, that in the view of the CAA has operated or might be expected to operate against the public interest.'⁴⁷

Virgin Atlantic believes the level of cash extraction required by Ferrovial to service the debt it borrowed to finance its stake in ADI raises serious

concerns that should be examined by the Competition Commission. If it finds there is a potential threat to the public interest, a remedy would be to cap the rate of dividend extraction (or other payments to shareholder) to the growth of each regulated airport's operating profit.

- b) *Transfer pricing of airport capital expenditure.* Ferrovial is a construction company. Stockbroking analysts who follow the company welcomed the BAA acquisition as it gave Ferrovial construction subsidiaries the opportunity to benefit from BAA's investment programme:

Broker	Date	Comment
Cheuvreux	27 June 2006	“If we make the assumption that Ferrovial executes the building of part of these extensions itself ... this would add some €42m to group earnings ...”
Merrill Lynch	22 Sep 2006	“Construction work derived from BAA's investment pipeline could represent up to €3 per Ferrovial share.”
Santander	17 Oct 2006	Management ... “exploring the possibilities of revenue synergies from capex plan”.

Transfer pricing is one of the most blatant ways of siphoning out value and undermining the objectives of regulation. Airport users need to be protected against potential abuse of the Regulatory Asset Base and regulators in other sectors have found appropriate remedies. With a building contractor as BAA's controlling shareholder, Virgin Atlantic believes the CAA should make a public interest reference to the Competition Commission with a view to prohibiting such conflicts of interest. One option, for example, might be for the CAA to attach to each airport's permission to levy traffic charges a condition to prohibit any



contractors with a common controlling shareholder in the airport from being awarded any contracts.

V. Cost of Capital

V. i. The cost of capital and investment incentives

89. The Initial Proposals document characterises the role of the cost of capital assessment in CAA's thinking. It 'places weight on the need to provide sufficient incentives through its cost of capital assessment and other price control decisions to attract capital to the development of Heathrow and Gatwick airport'⁴⁸.

90. Attracting capital is, at best, a secondary objective for investment incentives. The prime objective is to encourage BAA to develop and implement a capital programme which meets the needs of users, to deliver capacity to meet volume and service demands in a timely manner and cost effectively. A generous cost of capital will attract capital, but it will also induce BAA to maximise the scale of its capital programme irrespective of the capacity it delivers. This issue was identified by the OFT⁴⁹, together with a suggestion that it could arguably be dealt with in the next Quinquennial Review⁵⁰.

91. Virgin Atlantic considers this issue to be fundamental to airport regulation. A competing airport has strong incentives to deliver capacity when needed, to minimise the cost of doing so and to manage the trade-offs between cost and capacity as effectively as it can. BAA, as a monopoly airport operator regulated under CAA's proposed regime, would have little incentive to do any of these. The Price Path Commitment proposal made by the CAA at the last review, while it had some fatal flaws, at least had the virtue of addressing this fundamental issue head on and it is a shame that attenuated developments of it have not been explored since.

92. This time round, the CAA is placing its hopes on Constructive Engagement which, while changing the context for consultation and assessment of capex needs, does nothing for the underlying incentives for BAA – it is still strongly incentivised to propose expensive projects and to maintain demand for more expensive projects in the future.
93. The focus of BAA’s investment incentives should be on delivering capacity in time to meet demand, in accordance with the statutory objectives, rather than on what it spends. The cost of capital creates an incentive to build projects big, so-called “gold plating”⁵¹. The conventional incentives for capex under RPI-X are for procurement savings, but the power of those incentives is diluted if the cost of capital allowance is higher than it needs to be – if it is high enough, BAA has an incentive to spend money unnecessarily, especially towards the end of a control period in the absence of a rolling incentive mechanism. Neither the cost of capital nor procurement incentives effectively address the delivery of capacity, since investment spend is not an effective proxy for capacity delivered. There is some value in having capex triggers, but these simply govern the delivery of an already assessed programme rather than incentivise the efficient development of that programme in the first place.
94. The focus of investment incentives is, therefore, structurally misplaced. In particular, the weight the CAA places on a high cost of capital to attract investment is both unnecessary and, in the long run, detrimental to the interests of users – it is too blunt a tool, incentivising all investment indiscriminately.
95. It is Virgin Atlantic’s opinion that the CAA’s position as contained in its Initial Proposals document is not one best calculated to further the reasonable interests of airport users and promote efficiency or timely and appropriate investment.

V. ii. *The cost of capital assessment*

96. Virgin Atlantic has reflected on the CAA's analysis of the cost of capital and is encouraged that the CAA is taking a more realistic, evidence-based view of some of the key components rather than disregarding the market evidence and preferring an arbitrary and rather partial alternative assessment, as some regulators appear to have done. In the CAA's case, the evidence revealed by the recent acquisition of BAA would have been difficult to ignore. The returns for BAA's investments in Heathrow and Gatwick, especially Heathrow, are substantially insulated from any material sources of systematic risk. Virgin Atlantic does not deny that some significant risks remain, but it is difficult to see how these risks would be significantly market-covariant and so these are properly risks for the management of BAA to manage and have no bearing on the cost of capital assessment.

97. While some aspects of the CAA's assessment are encouraging, CAA's stated emphasis on the cost of capital as a key investment incentive reveals a tendency towards bias. Virgin Atlantic believes that there is no need for any bias whatsoever if some underlying incentives for the delivery of capacity are in place – a strong incentive to build capacity would trump any marginal 'error' in the cost of capital assessment.

98. Virgin Atlantic has not undertaken an extensive analysis of the cost of capital issues and prefers to emphasise its view that there should be no bias or weighting in the CAA's own analysis. However, there are two technical aspects of the cost of capital assessment that Virgin Atlantic wishes to comment on. They relate to tax and the market risk premium.

V. iii. Tax and the cost of capital assessment

99. The observed rate of tax in company accounts is typically lower than the headline rate. There is usually one main reason for this – capital allowances are relatively accelerated, compared with accounting depreciation. However,

the relevance of this effect for the cost of capital depends on the differential between capital allowances and regulatory depreciation, rather than accounting depreciation. This should generally be rather smaller.

100. However, there is a further effect arising from inflation that is ignored in the conventional CAPM computation of the cost of capital. This is the fact that the real-terms value of the tax shelter is rather larger than the headline rate. The real pre-tax cost of debt can be readily worked out, but the company benefits from a tax shelter that is calculated on the nominal cost of debt, the interest cost. The company gets relief not only on the real cost of debt but also on the inflation component of the interest rate – a very significant benefit in real terms.

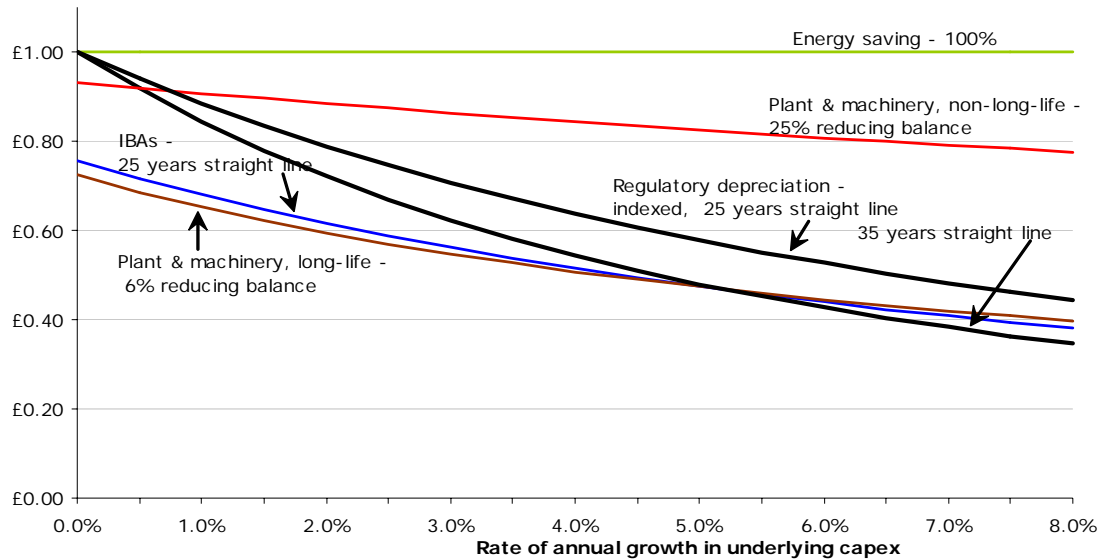
101. Virgin Atlantic acknowledges the CAA's preference for adopting a high-level approach to the cost of tax. The simplest approach would be to adopt an assumption of the headline rate of tax in the computation of the tax wedge. To the extent that this potentially overstates the cost of tax, it would be possible for the CAA to take this overstatement into account in its wider judgements about other components of the cost of capital. Alternatively, it would be able to incorporate a better assessment of the effect of tax on the cost of capital by carrying out a more detailed assessment, which may be necessary in any event to inform its wider judgements.

102. To reflect the longer-term nature of a pre-tax assessment, such an assessment would need to consider the longer-term impact of tax, recognising that capital programmes are lumpy. It is possible to 'see through' such lumpiness by characterising the longer-term characteristics of a company's capital programme for tax purposes: its underlying rate of growth and the balance between different tax categories of capital expenditure. The following chart shows the levels of capital allowances that would be available each year for each £1 of capex, growing in real terms over the longer term.

Regulatory depreciation vs. capital allowances

Assuming 2.5% annual inflation

Long-run annual amounts for each £1 of capex, with constant rate of growth



103. For comparison, the chart also shows the level of regulatory depreciation under two assumptions for average asset lives, of 25 years and 35 years. It shows how inflation reduces the real value of the relatively deferred capital allowances for Industrial Buildings, but also shows how underlying growth in the capital programme would affect the relative value of depreciation and capital allowances.

104. By using the same assumptions for growth and depreciation, it is then possible to infer an effective rate of tax on operating profits. The following chart indicates the longer-term effective rates for a selection of assumptions for capital allowances and asset lives that may reasonably relate to BAA’s airports.

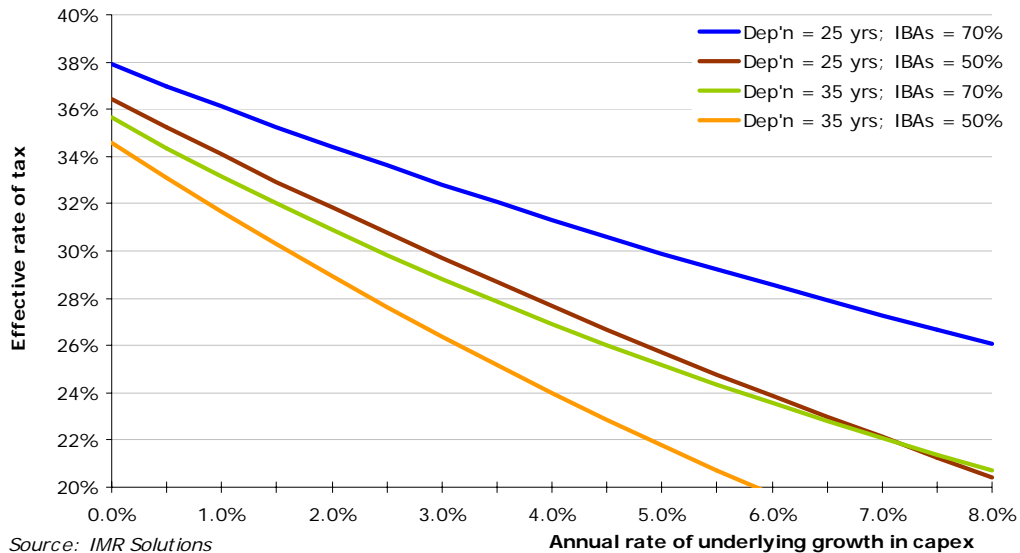
Expected effective rate of tax

On regulatory profits before interest costs at 6% of the RAB

2.5% inflation

Straight line regulatory depreciation

Percentage eligible for IBAs over 25 years, remainder eligible for plant and machinery allowances at 25%



Source: IMR Solutions

105. This chart shows that, in some circumstances, the effective rate of tax on regulatory profits (operating profits after regulatory depreciation) may even be higher than the headline rate of 30%. However, this does not take into account the other effect of inflation and tax on the cost of debt. The following table presents the CAPM computation of the CAA's centre-line estimate of the cost of capital for Heathrow under the conventional basis, which disregards inflation, and an alternative basis with inflation of 2.5% and an increased assumption for the effective rate of tax informed by the above analysis. It suggests that the pre-tax cost of capital could be about 0.4% lower than indicated in the Initial Proposals.

WACC estimate - inflation and tax analysis

Based on Heathrow Airport CAA centre-line estimate,
December 2006.

	No inflation headline tax	With inflation 33% tax
Gearing	60.00%	60.00%
Cost of debt		
Pre-tax cost of debt	3.00%	3.00%
Inflation		2.50%
Nominal pre-tax cost of debt	3.00%	5.58%
Headline rate	30.00%	30.00%
Post-tax nominal cost of debt	2.10%	3.90%
Inflation		2.50%
Post-tax real cost of debt	2.10%	1.37%
Cost of equity		
Post-tax MRP	4.50%	4.50%
Equity beta	1.200	1.200
Risk premium	5.40%	5.40%
Risk-free rate	2.00%	2.00%
Post-tax cost of equity	7.40%	7.40%
WACCs		
Post-tax WACC	4.22%	3.78%
Effective enterprise tax rate	30.00%	33.00%
Pre-tax enterprise WACC	6.03%	5.64%

106. While recognising that this estimate is significantly dependant on assumptions about growth, capital allowances and depreciation, it is also clear that the effect would be much stronger for higher levels of gearing, such as those in practice forecast for BAA's shareholder.

V. iv. *Equity risk premium*

107. Virgin Atlantic has a further concern relating to the interpretation of the equity risk premium for the purpose of setting a required return for a regulated monopoly. It observes that outturn cash flow returns are relatively stable in any one quinquennium and that this observation starkly conflicts with

an assumption inherently behind the conventional assessment of the equity risk premium.

108. The equity risk premium is assessed with reference to the difference between returns on risk-free investments, typically gilts, and the returns on investments in the equity markets. A recent report by Smithers & Co for Ofgem⁵² noted that equity returns in the longer term have averaged about 5.5% per annum in real terms, on a compound return basis, or between 6.5 and 7.5% on an arithmetic mean basis. Smithers & Co explains that this arithmetic mean basis is the reference point for the equity risk premium.
109. The reason for the difference between the compound rate (or geometric mean) and the arithmetic mean is the volatility in annual returns on the stock markets. An equal number of years with returns of +25% and -20% will give an arithmetic mean of 2.5% returns per annum and an equal number of years with +37% and -27% would give an arithmetic mean of 5.0% returns per annum, but the overall compound return on both scenarios would be zero. This illustrates that the difference between the arithmetic and geometric means is a function of how volatile they are.
110. If returns are volatile, for investors to have a reasonable prospect of making a specific compound return (geometric mean), they must have a reasonable prospect of making a higher rate of return on average (arithmetically) in any one year. For investors in the stock market, it appears those annual returns need to be about 1 to 2% higher⁵³ on average. However, the difference required is dependent on the level of predictability of returns.
111. The returns that are subject to the cost of capital assessment are not stock market returns but regulatory cash flow returns. It is evident from the actual returns shown by the regulated airports that the volatility of those regulatory cash flow returns may be substantially less than the volatility of stock market returns, which are driven by oscillations in market valuations of

shares – there is no equivalent oscillation in the valuation of the RAB (a peculiar characteristic of regulated businesses; the economic value of the business assets for conventional businesses would be inherently more volatile). This means that the arithmetic mean adjustment that is applied to the compound rate estimate to derive an equity risk premium could be substantially unnecessary for the estimation of required annual returns for a RAB-based regulated business.

112. The error can be simply demonstrated with an example of a regulated company with a beta of one. If the regulator were to assess the cost of equity at 6.5% post tax, we might reasonably expect actual compound returns for the regulated business to be close to 6.5% (assuming fair estimates of costs, unregulated revenues and volumes and a reasonable level of volatility around centre-line assumptions). However, compound returns on the stock market might only be expected to be close to the longer-term level of 5.5%. In other words, the regulatory return constructed in this way would build in a systematic outperformance of the equivalent stock market compound returns.

113. It may be appropriate for the CAA to undertake some analysis of historical volatility in regulatory returns and modelling of the effects on equity returns under projected gearing assumptions. Virgin Atlantic believes that this should be a factor that the CAA considers before reaching its overall assessment of the cost of capital.

VI. Conclusion

114. Virgin Atlantic believes that in its Initial Proposals document, the CAA has once again been too generous to BAA, especially at Heathrow. At a time when airlines face intense competition and modest profitability, we had hoped that the regulator would have sought to apply tighter controls on the



monopoly powers of BAA. If the CAA's initial proposals are eventually implemented, the airlines and their passengers will be called upon to continue to pay excessive airport charges at Heathrow and Gatwick.

115. We welcome the CAA's proposal to reduce the cost of capital, but believe that the proposed ranges are too generous. The CAA must not be rolled-over by a BAA threat of a refusal to invest.

116. Virgin Atlantic also welcomes the CAA's consideration of whether to tie a greater proportion of revenues to the investment programme. In our view, tying capital investment into delivery of improved service quality is necessary to avoid BAA creating enormous CapEx projects purely so that the airport operator can take the profit it makes between the cost of capital allowed by the CAA and the actual cost of capital it incurs.

117. As for the range of price controls that the CAA proposes (for Gatwick, RPI -2% to +2% each year; and for Heathrow, RPI +4% to +8% each year), Virgin Atlantic does not understand why the CAA has proposed consideration of increases in charges above RPI. If the top of the range increases are accepted, the aggregate growth increase in charges during Q5 would be 50%. Put simply, such increases are unacceptable.

118. Virgin Atlantic notes that the "CAA has not yet had the opportunity to examine and come to a definitive view on a number of aspects of future costs including: security, pensions and utility costs, and whether joint costs have been reasonably allocated between the airports." ⁵⁴ We hope that once this work is completed, the CAA will recommend a much lower price control in its reference to the Competition Commission.



119. Overall, Virgin Atlantic believes that the proposals contained in the Initial Proposals document would, if adopted, worsen still further the effectiveness of the regulation of BAA for the reasons set out in this response.

Virgin Atlantic
February 2007

Economic Regulation Group
Economic Regulation and Competition Policy



Kyran Hanks
Director, Economics & Regulation
BAA plc
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2 November 2006

Dear Kyran

Heathrow Terminal 3 Car Park

We have received a submission from an airline operating from Heathrow complaining about the recently opened new car park at Terminal 3 at Heathrow. This identifies a number of problems with the design and operation of the car park (set out below), which collectively contribute to delivering poor service to airline passengers:

- Poor design resulting in 'gridlock' during peak periods and substantial passenger inconvenience during less busy times, specifically;
- Positioning the up and down ramps next to each other, resulting in severe congestion at times;
- Inadequate lift provision;
- Situating the pick-up and drop-off point on the same level, again leading to severe congestion at times;
- Inadequate and poorly situated payment machines.

The submission notes that the net result of the identified problems is that it can take up to an hour to exit the car park, and a long time to find a space on entry. In the airline's view, this facility provides inadequate service to passengers, which adds to the already sub-optimal service experienced by passengers at Heathrow resulting from the delays triggered by heightened security requirements in place since August 2006.

The submission notes that the airline has raised the issue with Heathrow Airport Limited (HAL), which has acknowledged that the design of the car park could have been better and that it is reviewing what remedial action could be taken to improve its operation. The airline questions whether it should be expected to finance such an investment project by HAL that

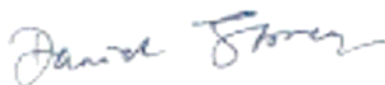
Civil Aviation Authority
CAA House, 400, 45-59 Kingsway, London, WC2B 6TE, www.caa.co.uk
Telephone 020 7453 0270 Fax 020 7453 0244 email enquiries@caa.gov.uk



has been poorly designed and implemented, or any additional investment which may now be required to make the project 'fit for purpose'.

I would be grateful for BAA's views on the issues set out in this letter.

Regards



Daniel Storey
Head, Airports Price Control

BAA Limited

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From the Economics and Regulation Director, BAA

27 November 2006

Mr Daniel Storey
Head, Airports Price Control
CAA
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BAA/Q5/357

Dear Daniel

Heathrow Car Park Terminal 3

Thank you for your letter of 2 November. In this letter, you explain that the CAA has received a submission from an airline about the Terminal 3 car park.

Before turning to the substance of your letter, we have a few comments:

- The car park was part of the CIP process. As far as we are aware, no airlines commented on the car park at that stage.
- In addition, the car park was the subject of specific consideration in the capital expenditure efficiency workstream. We are not aware of any airline comment at that point.
- Finally, a detailed presentation was given to the Heathrow AOC on 17 August 2004.
- In that light, we are not sure the basis of the CAA enquiry. We note that this is not a section 41 complaint, or in fact using the standing dispute resolution methodology.

Introduction

The new multi-storey car park at Terminal 3 is the first part of a major project to improve the whole of the terminal forecourt area. The aim is to create a world class environment which will radically improve the connectivity between the car park and the terminal for passengers.

The car park was designed based on our car park standards and a well tested model at other airports, which uses two adjacent external ramps to manage circulation. The design was adapted to respond to the unique constraints posed by the central terminal area which include the Heathrow Express infrastructure.

At all stages of design we seek to achieve the optimum solution balancing passenger experience, cost and constructability. We believe that overall we have achieved this and successfully delivered a major piece of infrastructure which significantly improves the CTA for our passengers.

Poor Design leading to gridlocks

It is recognised that there have been a number of operational issues leading to slow flows during peak periods which we have been systematically addressing over the past three months. However, it should be noted that - as it is the case with all car parks - passenger behaviour is the key factor influencing flows and whilst we try to predict this

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with sophisticated analysis and modelling software in reality only once a car park is operated and peak and non-peak periods it is possible to evaluate. Gridlocks are a the resulting symptom of some of these issues.

With specific reference to you other points:

Position of ramps

We used two adjacent external ramps to manage the circulation of ingoing and outgoing vehicles as it is normally done across our other airports. By using a flat deck with separate external circular ramps we are able to provide users with direct access, or bypass busy levels to find a parking space without having to follow the search pattern, floor by floor. It also enables floors to be closed-off for maintenance and cleaning.

As expected the majority of cars are aiming to park on the first available level (Level 1). Hesitation at this point, before leaving the ramp, has created some delays but queues have resulted from cars, entering Level 1 and on finding the level full, crossing the 'down' ramp to rejoin the 'up' ramp. By introducing Vehicle Management (VMS signage) at the entry to Level 1 to indicate when it is full, obscuring the view through to the deck, increasing the distance available for decision making (and during peak periods closing the level completely) cars have been encouraged to remain on the external 'up' ramp and so reduce congestion on both the 'up and 'down' ramps. We have also reverted the flow of one of the lanes on that floor and re-positioned zebra crossings to minimise hesitation and improve flow specifically on that floor plate.

Lift provision

With regard to the lift provision, the original number of lifts in the departures and arrivals cores were designed based on extensive operational research data which predicted the anticipated number of passengers and 'meeters' likely to require the use of lifts during the terminal's future peak periods. Upon opening the provision appeared to be deficient but precise data was unavailable. Over the past 2 months we have been working with Kone to gather usage data from the lifts operations and implement speed and programming changes that have significantly reduced lift waiting time. Operationally we experienced uneven and unexpected patterns of usage of the different lifts depending on arrivals or departures peaks and position of check in zone (e.g. certain departing passengers chose the arrivals route into the terminal because it gets them closer to their specific check in desks).

Further operational research has been commissioned internally supported by investigations in to the operation of the lifts and amendments to the signage within the lift/stair cores to understand whether additional lifts are required or whether service improvements can be introduced to deal with exceptional events during the lifecycle of the facility.

Pick up and drop off at same level

The siting of the arrivals pick up point on Level 1 was designed to coincide with the bridge link from the T3 Arrivals concourse. The introduction of a 'drop off point' was conceived to provide drivers with the option of not actually parking their car and accessing terminal 3 without incurring a parking fee. This would also reduce additional congestion within the terminal and forecourt. The opportunity is only signed at the drop off location and is presently not highly used. Congestion on this level is in our view more closely linked with the issues raised above. We are currently investigating the feasibility of using that floor differently however we must ensure that whatever changes introduced do not cause further disruption or confusion to passengers.

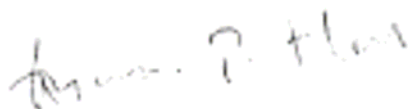
Poorly situated machines

The number, positioning and signage to the car payment machines operated by NCP have been carefully investigated with 2 machines being relocated with the potential to move 1 further machine to match observed traveller behaviour and the success of this solution is being closely monitored. The machines operate on a new, improved system which at first experienced some operational issues but these have now been resolved by the supplier resulting in a faster and improved paying experience.

As we address the issues mentioned, it is very encouraging that to see the specific QSM recorded on this car park since its opening showed a significant improvement over the old Terminal 3 car park and is currently the highest performing car park across all QSM categories within the Heathrow campus and indeed across the South-East Airports. (Overall rating = 3.7)

BAA is committed to resolving these issues in the most timely and cost effective manner, and whilst we have been consistently reporting our progress and addressing airline queries at the AOC, we would like to reiterate our commitment to the airlines that no unnecessary capital expenditure will be incurred in doing so.

Yours sincerely



Kyran Hanks

APPENDIX C

Funding of BAA Takeover by ADI

	Equity £bn		Debt £bn	
BAA EV	16.3			
BAA equity, convertibles & options	11.7	←	4.6	Existing BAA debt
	100%	↑		
ADI (inc £0.2bn transaction costs)	4.3	←	7.69	Acquisition vehicle debt
<ul style="list-style-type: none"> ▪ Caisse Dépôt et Placement Québec – 28.2% ▪ Singapore Govt – 10% 	61.8%	↑		
FGP Topco	2.6			
	100%	↑		
Parent and intermediate Ferrovial entities	0.6	←	2.0	Guaranteed/secured on TopCo shares, Ferrovial Aeropuertos & Cintra shares – repayable in 8 years

Source: Ferrovial presentation on BAA acquisition (3rd July 2006)

Footnotes Index

¹ UK Airports, OFT (December 2006)

² Ibid

³ Ibid

⁴ Ibid

⁵ Ibid

⁶ Ibid

⁷ Mike Toms / Oxera (January 2007), "Airport regulation: Keeping up with an industry at full throttle?"

⁸ Ibid

⁹ Letter from Kyran Hanks, Economics and Regulation Director, BAA to Daniel Storey, Head of Airports Price Control (27 November 2006)

¹⁰ Annex A, Price Control Review, CAA (December 2006)

¹¹ UK Airports, OFT (December 2006), table 6.3

¹² The Eddington Transport Study: Main Report: Volume 2, HMT/DfT (July 2006), figure 2.11

¹³ The efficient operation of airports forms part of the second of the CAA's section 39 duties under the 1986 Airports Act.

¹⁴ Eddington Study: Volume 2, para 2.51

¹⁵ Eddington Study: Volume 3, figure 3.1

¹⁶ CAA (December 2006), para 5.16

¹⁷ Airport Review Policy Issues, CAA (December 2005), para 3.21

¹⁸ CAA (December 2006), table A-13

¹⁹ CAA (December 2006), para 10.8

²⁰ CAA (December 2006), para 11.7

²¹ CAA (December 2006), para 11.12

²² CAA (December 2006), para 11.23-11.24

²³ CAA (December 2006), para 11.29

²⁴ CAA (December 2006), para 11.30

²⁵ CAA (December 2006), para 12.9

²⁶ CAA (December 2006), para 12.12

²⁷ CAA (December 2006), para 12.13

²⁸ CAA press release, 23 November 2006

²⁹ CAA (December 2006), para 12.10

³⁰ CAA (December 2006), para C.24

³¹ CAA (December 2006), para 10.2

³² CAA (December 2006), para 9.9

³³ CAA (December 2006), para 9.69

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- ³⁴ CAA (December 2006), para 15
- ³⁵ CAA (December 2006), para 6.8
- ³⁶ CAA (December 2006), para 5.14
- ³⁷ CAA (December 2006), para 22
- ³⁸ CAA (December 2005), para 7.1
- ³⁹ CAA (December 2005), para 7.5
- ⁴⁰ CAA (December 2005), para 7.24
- ⁴¹ CAA (December 2006), para 37
- ⁴² CAA (December 2005), para 7.24
- ⁴³ CAA (December 2005), para 7.31
- ⁴⁴ BAA press release, 5th December 2006
- ⁴⁵ Merrill Lynch note, 22nd September 2006
- ⁴⁶ Merrill Lynch note, 22nd September 2006, table 13
- ⁴⁷ CAA press release, 24th February 2006
- ⁴⁸ CAA (December 2006), para 18.8
- ⁴⁹ UK Airports, OFT (December 2006), paras 1.11 and 6.16-6.32
- ⁵⁰ UK Airports, OFT (December 2006), para 6.30
- ⁵¹ e.g. UK Airports, OFT (December 2006), para 6.23
- ⁵² Report on the Cost of Capital, Smithers & Co (December 2006)
- ⁵³ Report on the Cost of Capital, Smithers & Co (December 2006), page 38, 2nd para
- ⁵⁴ CAA (December 2006), para 6.10