

**Pricing Structures and Economic
Regulation**

- Consultation Paper -

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Civil Aviation Authority

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Executive summary

This paper considers a variety of questions relating to the form of the price caps and invites responses from the industry and other interested parties. As laid out in its October 2000 Position Paper¹ the CAA considers that its statutory duties laid out in Section 39 of the Act are likely to be best met by considering trade-offs between them against a test of economic efficiency. This will provide the basis for its recommendations to the Competition Commission in relation to the matters considered in this paper.

The paper considers the following questions:

- The “revenue yield” versus the “tariff basket” approaches;
- Separate caps for separate airports, or caps covering more than one airport (in the case of BAA);
- The treatment of discounts against listed prices;
- The treatment of revenues from non-passenger flights;
- The case for cost pass throughs;
- The case for a volume term.

Some of these issues are outlined without expressing any preliminary views on the part of the CAA. However, the paper does express the following preliminary positions:

- A preference for a move to the tariff basket approach, subject to the practicalities of implementing the tariff basket if new airport charges are introduced by the airports;
- An understanding that price differentiation at airports may be desirable and justifiable, and that potential abuses should be considered under competition law and Section 41 of the Airports Act;
- There is a possible case for removing non-passenger flights from the price caps and a substantial loosening of the limits to be applied to the charges for such flights;
- A presumption against permitting cost pass throughs, including security cost pass throughs which are permitted under the current caps;
- A presumption against a standard volume term.

¹ CAA, *The CAA Approach to Economic Regulation and the Work Programme for the Airport Reviews*, October 2000 (all CAA consultation papers are available at www.caaerg.co.uk).

The questions repeated in the main text are listed below:

- What is the case for and against moving to a tariff basket approach?
- If price cap continues to be based on revenue yield, what amendments, if any, should be made to it?
- The CAA has no preliminary conclusions on whether there should be a single charge cap for all of BAA's designated airports, the current control on Heathrow and Gatwick continued, or whether there should be a move to separate caps for each airport. Views and evidence on the direction to take are invited.
- If a separate price cap for Stansted is retained, should Stansted's prices be set on a stand alone basis, or should it be set on the basis that the asset base across all three airports is financed by charges across all three airports?
- Is there a good case for prescriptive regulation in relation to differential prices between users? Is there a case for more transparency in relation to off-list pricing to particular users?
- How should discounts against listed prices be treated under the price cap?
- Should charges to non-passenger flights be excluded from the revenue yield determination, and limits placed on those charges separately?
- What should those limits be? Is there a case for a lighter cap in relation to non-passenger flights such that the cap does not "bite" in practice? What is the evidence that other airports, or other forms of freight transport, are effective competitors for each of the designated airports?
- What is the case for and against continuing with security cost pass throughs? Is there a case for any additional areas of cost pass through?
- If security cost pass throughs continue, how should the S factor be specified?
- What is the case for and against a volume term? How is the case enhanced or reduced where:
 - (i) the volume term is symmetrical; and
 - (ii) incremental costs are higher than average costs?

Responses

Comments on the issues raised in this paper and any other issues which respondents believe should be considered by the CAA in reviewing the airports should be sent in writing by **21 May 2001** to:

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All responses will be treated as public information unless otherwise specified. If a response is made in confidence it should indicate that.

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1. Introduction

- 1.1 Under the Airports Act 1986 (the Act) the CAA is required to set limits on the revenues raised through Airport Charges at designated airports. The Act allows for wide discretion in the form that these limits can take.
- 1.2 This paper considers a variety of questions relating to the form of the price caps and invites responses from industry parties. As laid out in its October 2000 Position Paper the CAA considers that its statutory duties laid out in Section 39 of the Act are likely to be best met by considering trade-offs between them against a test of economic efficiency. This will provide the basis for its recommendations to the Competition Commission in relation to the matters considered in this paper.
- 1.3 The paper discusses the following questions:
 - The “revenue yield” versus the “tariff basket” approaches;
 - Separate caps for separate airports, or caps covering more than one airport (in the case of BAA);
 - The treatment of discounts off listed prices;
 - The treatment of revenues from non-passenger flights;
 - The case for cost pass throughs;
 - The case for a volume term.

2. Revenue yield versus tariff basket

- 2.1 At present airport charges at all of the designated airports are capped by reference to the revenues generated per passenger served. This is the “revenue yield” approach to setting limits on airport charges. The main alternative to the revenue yield approach is the “tariff basket”, which has been applied to some regulated utilities, notably BT. Under the tariff basket approach, the airport is permitted to set charges for its various services subject to the constraint that the weighted average of those charges² is no greater than the weighted average charges in the previous year, plus or minus the X factor.
- 2.2 The question of which approach is better has been considered at previous airport reviews. In most cases the MMC concluded that the revenue yield approach was superior. One exception was the MMC recommendations in relation to Manchester in 1987³, where the MMC advocated a move to the tariff basket approach, but the CAA opted to continue with the revenue yield formula. The arguments have centred around the properties of the respective formulations in providing incentives to move to efficient pricing structures, and the practicalities of implementation.
- 2.3 In the responses to the CAA’s July 2000 Issues Paper, BAA argued that the alleged theoretical advantages of the tariff basket may be illusory. BARUK and IATA believed that the revenue yield approach was preferable.

The form of the price cap and economic efficiency

- 2.4 Airports have a number of characteristics that suggest that high importance should be placed on ensuring that the framework for economic regulation gives the right incentives to move to efficient price structures.
- 2.5 On the cost side, airport charges cover a wide range of services and facilities with a corresponding range of incremental costs associated with them.⁴ A basic principle of efficiency is that prices should reflect these incremental costs. However, airports also incur substantial common costs in providing these facilities and services. Where common costs exist, pricing strictly at incremental costs will not allow the airport to cover these common costs. In such situations

² The weights are typically defined as the weights of the various charges in revenues derived from the previous year.

³ MMC 1987, *Manchester Airport plc: A report on the Economic Regulation of the Airport* MMC1, paragraphs 7.4-7.15.

⁴ Here we are referring to the short run incremental costs faced by the airports, as opposed to the forward looking long run incremental costs discussed in CAA 2001, *Economic Regulation and Incremental Costs*.

the objective is to set prices in such a way that the loss of outputs associated with pricing at above incremental costs is minimised.

- 2.6 The standard theoretical solution is “Ramsey pricing”. Under Ramsey pricing, the mark ups over incremental costs reflect the respective demands of users and consumers for the services and facilities concerned. Where the demand for a service is inelastic, a relatively large mark up will result in only a small reduction in output. Where demand is elastic mark-ups will result in larger deviations. Under Ramsey pricing therefore, the mark-ups over incremental costs are set in inverse proportion to the demand elasticity.
- 2.7 In the context of airports it is important to note that the incremental costs faced by the airports do not take into account externalities from congestion and capacity scarcity. Where capacity is scarce, or heavily used, the use of that capacity by an additional user may create additional costs for other users. This may either be in the form of lower service quality resulting from congestion, or in the form of the opportunity costs of preventing some other user from using the scarce capacity. In such circumstances, pricing at the fully specified incremental costs would not necessarily result in a failure to cover common costs. Indeed, if the opportunity costs were large, as is likely to be the case at Heathrow and Gatwick, pricing at fully specified incremental costs would be likely to lead to over-recovery of common costs.
- 2.8 A further general point is that since airport facilities and services are varied, a form of a price cap that recognises this is desirable. As discussed below, an important drawback of the revenue yield approach is the implicit reduction of these varied outputs solely to passenger numbers.

The revenue yield approach to price setting

- 2.9 The revenue yield approach has a number of advantages. It is highly flexible, since it does not place any constraints on the charges that can be levied. It is relatively adaptable in incorporating new charges from year to year or dispensing with old ones. It has been the established approach at UK designated airports since 1986.
- 2.10 However, it does suffer from a number of drawbacks. Some are practical. Calculating whether the airports have complied with the cap can only be undertaken after the period under examination. It is possible that the charge levied will result in revenues per passenger which are higher or lower than those specified in the cap (the “concentration” and “dilution” effects). Thus a correction factor has had to be applied, combined with annual consultations with users on charges. This has worked reasonably well in practice.
- 2.11 Other problems relate to the denominator of the cap, hitherto passenger numbers. This creates incentive problems since it encourages the airports to focus on passenger volumes, possibly at the expense of other outputs. A good

example of this is the treatment of flights, which do not generate any additional passengers. There is very little incentive to attract such traffic, if the revenues from it must be offset by reductions in revenues elsewhere. In the case of Manchester, this problem has resulted in a need for a revision of the revenue yield cap between reviews so as to exclude non-passenger flights from the calculation.

- 2.12 More generally, the average revenue cap fails to deliver, in itself, good incentives to optimise service quality, since the cap is entirely driven by passenger numbers.
- 2.13 The incentives for the airport to “trade off” prices to one set of users or facilities with those of another have a more general undesirable effect. It can lead to excessive price differentiation where there is no scarce capacity. Where there is unused capacity, the airport’s incentives are such that it may even set prices below short run incremental costs for some users, since it can recover these by raising prices to other users. While this is in practice likely to be limited by competition law and Section 41 of the Act, there is no reason to conclude that the revenue yield approach will result in efficient prices in a situation where there are no capacity constraints.

Tariff basket

- 2.14 The tariff basket approach provides better incentives to move to Ramsey pricing than the revenue yield approach.⁵ It does not suffer from the problems of the revenue yield approach with regard to the crude definition of output as “passenger numbers” and, at unconstrained airports, the incentives to cross-subsidise different services. It can also, in principle, provide good incentives to provide different services and different levels of service quality, since the airport has good incentives to price different dimensions of quality and outputs in relation to their incremental costs and demands for them. In terms of practical implementation, the approach has the advantage that the price cap is determined, each year, in advance, and there is no need for a correction factor.⁶
- 2.15 The drawbacks of the tariff basket approach mainly relate to difficulties in practical implementation of other kinds. The main difficulty is that the cap works best where the specific charges levied by the airports do not change significantly over time. If a new charge is introduced, for example, there would not be any existing weight to apply to that charge. If the weight were set at zero, then clearly the airport would not face any limits to that charge in its first year of operation. This could create distorted incentives to introduce new charges, or re-

⁵ Under certain restrictive assumptions the tariff basket approach provides incentives to move to strict Ramsey pricing. If these assumptions are relaxed the tariff basket will not result in strict Ramsey pricing.

⁶ This last statement assumes that the basket is set against weights derived from performance in the previous year. If the weights were instead based on forecasts of volumes, a correction factor would still be required.

define old ones where they were not justified. Thus a degree of regulatory involvement in vetting new charges would be likely to be necessary.⁷ There is also less flexibility in re-setting charges within the year. As the MMC noted in the 1987 Manchester Report, this is not insurmountable, but it remains a drawback.

- 2.16 It has been observed in previous MMC reports that the tariff basket approach may give incentives to set higher prices for those dimensions of outputs where volumes are increasing most rapidly (assuming that the higher prices do not themselves choke off the increasing volumes). It is argued that this may have undesirable consequences at those airports with capacity constraints on air transport movements since the incentives to raise landing charges (which are unlikely to rise in volumes) will be diluted. Equally, incentives to raise prices for passenger numbers, which may rise faster, will be enhanced. However, this observation must be set against the incentives that the airport will have to raise prices for outputs with inelastic demand (landing charges) and lower them for those with more elastic demands (passenger numbers). Which of the various effects dominates in practice will depend in part on the demand elasticities for the respective outputs.

Conclusion

- 2.17 The issues of service quality and differential demands for services and outputs at designated airports are of increasing importance as capacity constraints intensify and as the variety of users increases. The CAA's preliminary view is that the tariff basket approach is likely to perform better than the revenue yield approach in respect of these issues. If the practicalities of implementation can be overcome, the CAA would favour a move to the tariff basket.

What is the case for and against moving to a tariff basket approach?

If price cap continues to be based on revenue yield, what amendments, if any, should be made to it?

⁷ This might involve the regulator determining an appropriate weight for new charges when they are introduced, probably based around an estimate of what the weight for the new charge would have been if it had existed in the previous period, and adjusting the weights for other charges accordingly.

3. Separate price caps for separate airports in the case of BAA

- 3.1 In the current quinquennium there is a single revenue yield price cap covering Heathrow and Gatwick airports⁸ and a separate cap for Stansted. The question is whether this should continue to be the case, whether the concept of a single price cap should be extended to encompass Stansted as well, or whether there should be a move to separate price caps for each airport.
- 3.2 Respondents to the CAA's July 2000 Issues Paper expressed differing views on the subject. Britannia, the Air Transport Association of America, GAMTA, Ealing Aircraft Noise Action Group and the Strategic Aviation Special Interest Group of the Local Government Association all favoured individual caps for each airport. Luton Airport wanted a continuation of a separate cap for Stansted. The Gatwick Airport Consultative Committee thought that the pricing structure should reflect the need for the London airports to be a coordinated system. British Airways and IATA believed that the subject needed to be considered but had no fixed views on which approach should be used.
- 3.3 The basic argument in favour of applying a single cap to more than one airport is that the airports form a system where the demands and capacity at one airport affect the demand and capacity at other airports. Therefore if prices at, say, Gatwick, were to rise, demand may be displaced to Stansted. This may be desirable if incremental costs at Stansted are lower than they are at Gatwick. Under a single price cap, the airport could take this into account in setting its charges, and set higher charges at Gatwick, and correspondingly lower charges at Stansted. If the airports are subject to separate caps, then Gatwick will not be able to raise its charges with consequently less incentive to lower charges at Stansted.
- 3.4 The broader version of this argument is to note that prices at Heathrow and Gatwick appear to be below market clearing levels (in the sense that there is excess demand for access at prevailing levels of airport charges), while at Stansted prices are above market clearing levels (in the sense that there is currently spare capacity, at least at off-peak periods). Moreover, while at Heathrow and Gatwick current charges are likely to be below short run incremental costs (including opportunity costs of scarce capacity⁹), at Stansted they may be above short run incremental costs. A single price cap which allowed the airports to rebalance

⁸ Subject to the constraint that the charge differential between Heathrow and Gatwick is required to increase by at least one percentage point per annum.

⁹ At capacity constrained airports where there is excess demand the use of scarce capacity by one user denies the use of that capacity to other potential users. The valuation of the scarce capacity by potential users is the opportunity cost of that scarcity.

across all three airports would be likely to result in higher charges at Heathrow and Gatwick and lower charges at Stansted. As such, it would be more in line with the economic fundamentals across the airport system.¹⁰

- 3.5 A further point to note is that the CAA's statutory obligation to impose minimum restrictions would appear to be more consistent with a single price cap which, by definition, would give BAA greater freedom in conducting its affairs, unless such a restriction is required to meet one of the other statutory obligations.
- 3.6 Ryanair has argued that Stansted has a special role as a base for low cost carriers that should be taken into account when reviewing the regulatory regime. Arguably a price cap across all of the BAA designated airports that would be likely to result in lower price at Stansted than a stand alone cap would be consistent with this view. However, there would be a corresponding loss for airlines at other airports. The CAA's general view is that economic regulation should not seek to support one particular form of service provision over another, and the question will be considered against the CAA's statutory duties.
- 3.7 One argument against a single cap is that while this form of re-balancing may be justified in some circumstances, it can also result in cross-subsidisation of Stansted airport (if the cap is specified as a revenue yield cap). BAA could conceivably cut charges to a level at Stansted which was below long run incremental costs (taking into account capacity costs) and could even provide incentives to set prices below short run incremental costs (although competition law and Section 41 of the Act should prevent serious abuses from occurring). This could disadvantage other airports in the London area relative to a situation where separate price caps were specified.
- 3.8 The CAA notes that in the past the price caps for Heathrow, Gatwick and Stansted have been set on the basis of a single asset base across all three airports. Even if there is no evidence of anti-competitive cross-subsidy, other smaller airports in the south-east and elsewhere do not benefit from having part of their fixed costs being covered in part by charges at Heathrow and Gatwick. There remains a 'level playing field' argument against the airport system approach. It might also be argued that the setting prices other than on a stand-alone airport basis is less transparent in enabling users to understand the basis for the price caps.
- 3.9 However, setting the prices at Heathrow and Gatwick without taking account of the Stansted component of the asset base may be viewed as a renegegment by the regulator on the previous regulatory contract. This may no longer be the case if

¹⁰In terms of economic theory, this argument boils down to the observation that setting Ramsey prices across all airports will result in more efficient pricing structures than setting Ramsey prices at individual airports.

Stansted's recent success means that it would now be commercially profitable on a stand-alone basis. If, however, this would not be the case, the CAA would clearly need to consider carefully the consequences of moving to strict stand-alone pricing for Stansted in terms of perceived increases in regulatory risk.

- 3.10 Whether a single cap limited to Heathrow and Gatwick continues to be adopted, or whether there should be separate caps for each airport, is less likely to have a major impact, given that the capacity constraints at each airport are more severe. However, the argument would run along similar lines.
- 3.11 The debate surrounding the BAA price cap may be influenced by the ultimate conclusion on which approach to setting the price caps should be adopted. For example, if the view is taken that price caps should be set on the basis of forward looking incremental costs (that are airport specific) or benchmarking, then the argument in favour of separate price caps for each airport is stronger. If a dual till were adopted with the objective of ensuring that aeronautical facilities should cover their costs, or if a dual till were introduced at Heathrow and Gatwick but not at Stansted, then again the argument in favour of stand alone caps would be enhanced. Introducing a basis for wider contracting outside of the price caps would also be likely to result in a focus on airport specific price caps, rather than airport system caps.¹¹

The CAA has no preliminary conclusions on whether there should be a single charge cap for all of BAA's designated airports, the current control on Heathrow and Gatwick continued, or whether there should be a move to separate caps for each airport. Views and evidence on the direction to take are invited.

If a separate price cap for Stansted is retained, should Stansted's prices be set on a stand alone basis, or should it be set on the basis that the asset base across all three airports is financed by charges across all three airports?

¹¹ For a detailed discussion of these issues see CAA, *Economic Regulation and Incremental Costs*, February 2001; *The Use of Benchmarking in the Airport Reviews*, December 2000; *The 'Single Till' and the 'Dual Till' Approach to the Price Regulation of Airports*, December 2000; *Direct Contracting Between Airports and Users: Default Price Cap*, February 2001.

4. Treatment of discounts against listed prices

- 4.1 There are two issues to consider. First, whether discounts from list prices should be permitted generally. Second, how such discounts should be treated in the formulation of the price cap.

Treatment of discounts generally

- 4.2 The CAA considers that there should be no general presumption against airports setting differential prices to different users or categories of users. The cost structure of airports, which involve significant common costs, and the different nature of demands on the part of different users, suggests that an efficient pricing structure is likely to encompass a degree of differentiation in mark ups over incremental costs. Excessive discrimination is best dealt with under competition law and Section 41 of the Act, rather than through pre-specified regulatory restrictions.
- 4.3 In its response to the CAA's July 2000 Issues Paper, BATA expressed concern over current price differentiation at Manchester, with specific regard to the airport's "Millennium Offer" (which is a set of published discounts for new or growing routes). The CAA recognises that the structure of prices could also be considered as a public interest question under the Act. There have not been any major public interest findings in relation to pricing structures by the MMC in the past. In general, the CAA considers that if there is a case to answer, it is best addressed either under competition law or under Section 41 of the Act, and so far no formal complaints have been submitted under either (to the CAA's knowledge). Therefore the CAA does not intend to pursue this question further in its preparations for the reference to the Competition Commission. Interested parties will, of course, be at liberty to raise the issue with the Competition Commission at that stage.
- 4.4 A slightly separate question is how transparent such differential pricing should be. At present there is no regulatory requirement that the terms of access for particular users should be published for other users, and discounts against published list prices may occur at some of the airports, particularly those with spare capacity. While the CAA is generally in favour of transparency, its duty to impose minimum restrictions and the recognition that negotiation to get the best deal is routine in many industries would augur against prescriptive intervention in this area.

Is there a good case for prescriptive regulation in relation to differential prices between users? Is there a case for more transparency in relation to off-list pricing to particular users?

Treatment of discounts against published prices in the price cap

- 4.5 The issue here is whether the price cap limits should be set against the published prices offered by airports (with the presumption that no user would opt for a higher price than the list price) or whether they should be set against actual prices paid. That is, how a discounted price should be treated in determining whether the airport has met the price cap limit.
- 4.6 At present there is an anomaly between Manchester and the BAA airports. At Manchester, the revenue counted as being received under the cap is deemed to be against the listed prices. If a user negotiates a discount (other than one of the discounts published in the listed tariff), the notional full list price is still assumed to have been received under the price cap calculations. If BAA gives discounts off the listed airport charges, this should be taken into account in the revenue yield calculation.
- 4.7 The Manchester derivation was set following the MMC's 1997 review of Manchester's charges. The MMC took account of British Airways' concern that Manchester could, by such discounting, reduce charges to some customers and increase them to others while keeping within the price cap. The issue was not raised by airlines in the MMC's 1996 review of BAA so the MMC did not consider whether such a condition was required.
- 4.8 The effect of not including discounts in the revenue calculations is to reduce the airports' incentives to offer such discounts compared to a situation where the airports could, in principle, offset the discounts with higher charges to other users while remaining within the price cap. In the case of Manchester, there is nothing in the price cap formulation to prevent the airport from offering *published* discounts, which would allow, in principle, the airport to offer discounts which are offset by higher charges elsewhere (assuming that the airport prices up to the cap). The essential difference therefore concerns the desirability, or otherwise, of unpublished discounting. As noted above, unpublished discounting is non-transparent, but it is also widely accepted practice in commercial negotiation in many industries and markets.
- 4.9 If there were a move to a tariff basket approach, the issue would need to be considered in the light of the incentives created under that approach. Since a tariff basket requires the various charges to be specified it would be difficult to incorporate private discounting against published charges into the basket itself. One solution would be to ignore private discounts under a tariff basket. Since private discounts are likely to give a better deal to those who receive them, the absence of regulatory oversight need not be problematic. And because the tariff basket is not based on average revenues, the decision to offer a private discount to one party would not give the airport scope to raise charges to others.
- 4.10 If the price cap were specified to allow greater contracting outside of the cap, the mechanism for ensuring that private contracts did not disadvantage those users

remaining on the default price cap could cover private discounts. Indeed one mechanism for ensuring this would be very similar to the current arrangements for unpublished discounts at Manchester, with the default price cap being calculated *as if* all users had actually paid the default price cap price, even if they had in practice concluded a private contract with the airport.¹²

How should discounts against listed prices be treated under the price cap?

¹² For a more detailed discussion see CAA, *Direct Contracting Between Airports and Users: Default Price Cap*, February 2001, paragraphs 2.18-2.22, 2.46-2.47.

5. Treatment of revenues from non-passenger flights

- 5.1 Following representations from Manchester Airport in 1999 and consultation with users of the airport, in 2000 the CAA agreed to remove revenues from non-passenger flights from the calculation of revenues received under the price cap. In its place, the CAA required that Manchester should not set landing charges to non-passenger flights at a level above its listed landing charges for passenger flights. The reason for this was that because non-passenger flights do not contribute any passengers for the airport to set against its revenue yield cap, the airport's incentives to expand such flights were significantly reduced. If the revenue yield approach continues¹³, the CAA is in favour of a separation of charges for non-passenger flights from the main price cap at all the designated airports.
- 5.2 There is the more general question of what limits should be placed in relation to such flights. Since landing and aircraft parking charges to all flights count as airport charges, the CAA is required under the Act to place a limit upon them. One argument would be that the competition for all cargo and other non-passenger flights between designated airports and non-designated airports is greater than that for airlines and passengers. If this is so, then there is a case for a very much lighter cap on airport charges on non-passenger flights than for other flights, such that the limits imposed under the Act have no practical effect. The fall back option would be to set limits linked to the other regulated charges, but not include them in the revenue yield determination, as currently occurs at Manchester.

Should charges to non-passenger flights be excluded from the revenue yield determination, and limits placed on those charges separately?

What should those limits be? Is there a case for a lighter cap in relation to non-passenger flights such that the cap does not "bite" in practice? What is the evidence that other airports, or other forms of freight transport, are effective competitors for each of the designated airports?

¹³ If a tariff basket approach were adopted this particular problem would not arise because the price cap would no longer be set against passenger volumes alone.

6. The case for and against cost pass throughs

- 6.1 At present there are cost pass throughs for security costs at all of the designated airports. Where the Government imposes new security requirements on an airport that were not anticipated at previous reviews, the airport identifies the incremental costs of the impact of this, and submits it to the CAA for approval. If approval is given, 95% of the costs are included in the S factor terms of the price caps. The recovery is allowed one year in arrears of the additional expenditure, e.g. costs incurred in 1998/99 would have been recovered in 1999/00. If there should be a relaxation of security requirements, there would be a corresponding S factor reduction.¹⁴
- 6.2 The Government, in its initial price cap for the BAA London airports in 1986, set the pass through at 75% of costs which could be recovered two years in arrears. The CAA set the same rate of recovery for Manchester in 1987. In its 1991 review of the BAA airports the CAA increased the pass through to 95% of costs one year in arrears as it believed that BAA had faced very significant increases in security costs due to stricter security standards being imposed by the Government with an associated cost burden. The CAA made the same changes to Manchester's S factor in its 1992 review. The factors remained the same in the 1996 BAA and 1997 Manchester reviews.
- 6.3 In the current quinquennium BAA has submitted S claims for expenditure on bringing the level of gaterroom security at Heathrow up to the required standards (in 1998/99, 1999/00 and 2000/01), for similar expenditure at Gatwick (in 2000/01) and for additional measures with respect to El Al at Heathrow (in 2000/01). The CAA agreed the claims for 1998/99 and 1999/00 but has not yet decided on the claims for 2000/01. Manchester Airport has submitted claims for the additional expenditure following the withdrawal of a dispensation allowing it to physically search a smaller percentage of hand baggage (in 1998/99) and for expenditure relating to 100% Hold Baggage Screening (in 1999/00 and 2000/01). The CAA agreed the claim for hand baggage search but has not decided on the Hold Baggage Screening claims.
- 6.4 Cost pass throughs are, by their very nature, in conflict with the incentive properties of price cap regulation. The point of setting fixed price caps for a period is to give regulated firms high-powered incentives to deliver their outputs at minimum efficient cost. Allowing firms to pass-through elements of their costs in between reviews of the price cap is likely to be less effective in delivering such incentives, even where only a proportion of the costs are permitted as pass throughs. Moreover, the process for identifying the genuine incremental costs of

¹⁴ There has been one instance of an S factor reduction in the case of BAA in 1993/4. Otherwise, all S factor claims have resulted in increase in prices.

the activities concerned on an ongoing basis is likely to be highly imperfect (as the work required is often combined with other changes), contentious, and involves the regulator in ongoing intervention. The CAA therefore has a strong presumption against allowing pass throughs unless there are compelling arguments in favour of them.

- 6.5 The basic economic argument in favour of cost pass throughs is that there are some costs over which the regulated firm has little or no control, that are subject to significant forecasting uncertainty within the review period, and where the risk of that uncertainty is better imposed on consumers rather than on the firm itself. In these circumstances it can be argued that the mitigation of the incentive properties of price cap regulation is relatively limited and a case can be made for allowing pass throughs. There are good examples of this in some regulated utilities. Transco and the national grid are energy transporters rather than dealers in gas and electricity in their own right. However, both perform a network balancing function that does involve a degree of activity as a buyer and seller of energy. A proportion of the costs of this are passed through since clearly Transco and the national grid cannot be expected to have a significant influence over the market price for gas or electricity.
- 6.6 In the CAA's preliminary view, none of the costs faced by the airports meet the criteria laid out above, including security costs. In relation to security costs the following can be noted. First the airports do have some control over the costs concerned as the Government usually negotiates with the airport on the practicalities of meeting the standard, including the timetable for doing so. Second, the risk involved is likely to be diversifiable (therefore there should not be an increase in the cost of capital), and there is no reason, in principle, why airlines should be exposed to this risk, as opposed to the airports who are better placed to manage it.
- 6.7 That said, the CAA recognises that moving away from security cost pass throughs would add a further complication to setting the price cap since a projection of the likely security requirements to be imposed, and the provision necessary to make for this, would need to be considered. However similar projections are already required for possible changes to other regulatory requirements, such as safety and the needs of customs and immigration. It might also be argued that not permitting cost pass throughs would give the airports incentives to attempt capitalise such costs. However, the incentive to capitalise operating expenditure (or replace operating expenditure with capital expenditure) is generic in a regulatory asset based system of price controls, and is not an issue limited to security cost pass throughs.
- 6.8 A further argument in favour of cost pass throughs is that the cost categories concerned should not be subjected to the commercial pressures generated by incentive regulation. It could be argued that if security costs are subjected to such pressures, then the airports' incentives will be to economise on their security arrangements with consequent threats to security. However, the logic of this

argument would point to removing all security costs from the price cap, not just additional requirements imposed between reviews.

- 6.9 The CAA considers that the case in favour of security cost pass throughs should be revisited and views and evidence are invited.

What is the case for and against continuing with security cost pass throughs? Is there a case for any additional areas of cost pass through?

If security cost pass throughs continue, how should the S factor be specified?

7. Volume term

- 7.1 There are currently no volume terms in the airport price caps, although the issue has been debated at length at previous reviews of both BAA¹⁵ and Manchester¹⁶. Similar issues were also raised in relation to the initial price cap for NATS.¹⁷
- 7.2 In its simplest form, a volume term in the price cap would act to increase prices where actual outputs turned out to be lower than forecast, and to reduce prices where actual outputs turned out to be greater than forecast. Many proponents of a volume term have, however, argued that such a term should only be imposed if it is non-symmetrical; i.e. only volumes above those forecast should result in a price cap adjustment, not those below. In its most extreme case, a volume term could be calibrated such that future revenues at the airports were entirely fixed. The price cap would become a revenue cap. In its lesser form, a volume term would have a lesser effect, although still having some impact on airport revenue as actual volumes deviated from those forecast.
- 7.3 The case often made in favour of a volume term within a price cap period is that where the incremental costs of additional outputs are lower than average costs, the airport will generate higher profits where actual volumes turn out to be higher than those forecast in setting the price cap. This being so, the airport will have an incentive to under-forecast its future demand (or capacity to meet additional demand) in order to get a looser price cap and enjoy additional profits when actual outputs turn out to be higher. Arguably, if volumes are subject to extreme uncertainty, the stability of a five-year price caps might be enhanced by a volume term through reducing pressure for mid-term reviews if volumes turn out to be much greater or less than expected.
- 7.4 There are several arguments against introducing a volume term of the type described. First, it dulls the incentives for the airport to meet additional demands.¹⁸ Second, it is not clear at all airports that marginal costs are below average costs. Third, demand forecasts can be subject to regulatory scrutiny at

¹⁵ MMC 1996, *BAA plc: A report on the economic regulation of the London airports companies (Heathrow Airport Ltd, Gatwick Airport Ltd and Stansted Airport Ltd)* MMC4, paragraphs 2:116-117, 5.7-5.9.

¹⁶ MMC 1997, *Manchester Airport plc: A report on the economic regulation of Manchester Airport plc* MMC5, paragraphs 2:32; 5:11-20.

¹⁷ CAA (ERG) 1999, *National Air Traffic Services Public-Private Partnership: Setting the Charges for the First Five Years, Preliminary Consultation Paper*, p.16; CAA (ERG) 2000 *National Air Traffic Services Public-Private Partnership: Setting the Charge Control for En-route Services in UK Airspace for the First Five Years, Consultation Paper*, p.7.

¹⁸ This problem would not arise if instead of using actual volumes of passengers or traffic, the price cap is adjusted according to an exogenous variable over which the airports have no control, but which was likely to be related to volume growth. A possibility might be GDP, which is likely to have a significant influence upon volume growth.

the reviews. Fourth, to the extent to which the objective of the volume term is to fix the airport's projected revenues, then the term arguably should be symmetrical; it is not clear that some supporters of a volume term would continue to advocate it if it were symmetrical.

- 7.5 Where incremental costs are likely to be above average costs, it is arguable that the appropriate volume term should move in the opposite direction to the type of volume term usually discussed. That is, rising outputs should be priced at incremental costs, and since these would be higher than average costs, an unanticipated rise in volumes should result in higher prices, not lower prices. Where this is the case, a volume term might provide positive incentives for the airport to increase volumes. This is in contrast to the situation where prices are above incremental costs, where a volume term has reduced incentives to accommodate additional demand.

What is the case for and against a volume term? How is the case enhanced or reduced where (i) the volume term is symmetrical and (ii) incremental costs are higher than average costs?