

Practicalities of Implementing a “Dual Till”

- Position Paper -

May 2001

Civil Aviation Authority

CAA House, 45-59 Kingsway, London WC2B 6TE

Executive Summary

In its paper *The 'Single Till' and the 'Dual Till' Approach to the Price Regulation of Airports*¹ published in December 2000 the CAA stated that it had commissioned Europe Economics and Mazars Neville Russell to advise it on how a dual till approach should be implemented, should the decision be taken to move to a dual till. Europe Economics have now completed their report² and the CAA has reviewed their conclusions. This note sets out the next steps that the CAA will take in determining the appropriate allocations of costs, assets and capital expenditure necessary to support a dual till. It is stressed that this does not prejudice the question of whether a move to a dual till is desirable. One of the issues in coming to a conclusion on whether to move to a dual till is the feasibility and practicality of implementing it, and the changes in regulated airport charges which it would imply. Therefore this process provides important evidence for the ultimate conclusion on whether a move to a dual till would best meet the CAA's statutory objectives.

The purpose of this paper is to provide guidance on how the CAA believes that the costs and assets of an aeronautical till should be identified if a move to a dual till were thought to be the regulatory option that best meets the CAA's statutory duties. It is not primarily intended as a consultation paper.

However, the paper does invite comments on what, if any, elements of surface access to the airport should be included in the aeronautical till. The paper presents three possible options:

- Not include any elements of surface access in the aeronautical till (with some case-by-case exceptions linked to planning conditions and intra-airport services);
- Include some elements of surface access in the aeronautical till, but not others (following Europe Economics, short term car parking could be included, and access charges for railway services, taxis, buses and coaches, and London Underground, together with their direct and allocated common costs and assets); possible exclusion of Heathrow Express in its entirety;
- Include all elements of surface access in the aeronautical till, even those where the airport did not have market power (i.e. include long term car parks, all revenues from various transport modes, not just access charges).

¹ All CAA papers published as part of its airports reviews are available at www.caaerg.co.uk.

² The Europe Economics report is available at www.caaerg.co.uk.

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 **18 June 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.

If you have any queries regarding this document they should be addressed to:

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Practicalities of Implementing a ‘Dual Till’

Introduction

In its paper *The ‘Single Till’ and the ‘Dual Till’ Approach to the Price Regulation of Airports*³ published in December 2000 the CAA stated that it had commissioned Europe Economics and Mazars Neville Russell to advise it on how a dual till approach should be implemented, should the decision be taken to move to a dual till. Europe Economics have now completed their report⁴ and the CAA has reviewed their conclusions. This note sets out the next steps that the CAA will take in determining the appropriate allocations of costs, assets and capital expenditure necessary to support a dual till. It is stressed that this does not prejudice the question of whether a move to a dual till is desirable. One of the issues in coming to a conclusion on whether to move to a dual till is the feasibility and practicality of implementing it, and the changes in regulated airport charges which it would imply. Therefore this process provides important evidence for the ultimate conclusion on whether a move to a dual till would best meet the CAA’s statutory objectives.

Europe Economics’ conclusions

Europe Economics’ overall conclusion is that moving to a dual till should be feasible in practice. With some modifications, the airports’ accounting frameworks provide a reasonable basis for implementing a dual till. Some basic modifications and challenge to the accounting systems and data will be required in the period leading up to the CAA’s reference to the Competition Commission. Further refinements may be appropriate in the longer term, but this first step would provide a robust enough basis to support a move to dual till pricing at this review. The ancillary arrangements for oversight of a dual till would be likely to involve greater regulatory involvement than a single till.

Europe Economics’ report includes an assessment of the designated airports’ accounting systems, of the extent to which they could support dual till allocations, and what modifications are likely to be required. It considers the definition of the tills, and various ancillary arrangements for ensuring that a dual till would produce efficient outcomes.

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Definition of the tills

The till definition is the starting point for the cost, revenue and asset allocations. The report considers various conceptual approaches to defining the aeronautical till, but focuses on the “monopolistic bottleneck” approach. This approach includes in the aeronautical till not just the activities directly related to the regulated airport charges, but also other activities undertaken by the airport that are essential for users to offer aviation services from the airport, and that are not (and can not be) competitively provided or replicable off-site. Under the monopoly bottleneck, Europe Economics conclude that the following definition of the aeronautical till should be adopted:

- Airside facilities (except for cargo terminal facilities and flight catering facilities);
- Passenger processing areas (except for business lounges);
- Office space used by airlines that is essential to locate at the airport;
- Refuelling facilities;
- Ground service (and freight handling) equipment storage and parking space;
- Facilities for unplanned essential maintenance;
- Elements of airport access.

Within this definition there are particular complications in relation to access to the airport itself and for passenger processing. The proposed approach to airport access is that the pricing related to the essential access element of the various modes of transport access should be included in the till, but that the transport modes themselves should not be included. A particular problem arises in relation to Heathrow Express where BAA is both the access provider and operator of the services (and the investment in the service was under the single till regime).

For passenger processing, the proposal is not that all of the costs of passenger processing should fall on the aeronautical till, but that part of passenger processing will be split between the tills. For example, security would be largely within the aeronautical till, but walkways would require a cost allocation because they provide access also to commercial facilities. This is discussed further in relation to cost allocation.

Given the till definition, the following need to be identified in order to calculate the price cap under a dual till:

- Revenue streams from non-regulated charges but which are included in the aeronautical till;
- The incremental costs of the aeronautical and commercial tills, identification of the common costs across both, and an appropriate allocation of those common costs;

- Identification of the regulatory asset base for the aeronautical till;
- Projections of the above over the period of the next price caps including identification of that part of the capital expenditure programme attributable to the aeronautical till.

Revenue streams

The report identifies those revenue streams beyond regulated airport charges which would be included in the aeronautical till under the till definition above. The main complication is the access charge for Heathrow Express, where there is no explicit access charge made by the airport. Europe Economics envisage that there would need to be a notional access charge for Heathrow Express included in the aeronautical till. The policy ought to be that the maximum charge is related to the economic costs of providing such access.

Cost allocation

There are three important elements to cost allocation:

- Identification of incremental or direct costs of each till;
- Identification of common costs across the tills;
- Allocation of those common costs.

The report notes two approaches that would provide corroborative support for one another. First would be an engineering estimate of the incremental costs of the aeronautical activities and of the commercial activities. It notes that BAA have already undertaken work in this area, and while the results of that work need to be critically reviewed, in principle this would provide a useful basis for testing the limits on the cost allocations.

Second is the accounting approach that would use accounting based attribution of costs to each till, and accounting allocations of non-attributable costs. The report argues that activity based costing, which attributes costs to different activities on the basis of cost causation, is best practice in this area since it limits the scope of common costs which require more arbitrary allocations. The report states that BAA's accounting allocations underpinning its 'profit centre reporting' already have elements of cost causality built into them, but that since the profit centres were not designed around a dual till, modifications are required, and a review of cost causation in the most complex activities is appropriate. The Manchester system would require more work in this area.

Once the incremental costs have been identified, there are likely to be residual areas of common cost that require allocation. The report notes that there is no single "correct" approach to common cost allocation. One approach considered in the report is to allocate common costs on the basis of the outcome of a hypothetical negotiation between the two businesses on the basis that this would take more explicit account of

demand side factors. Other approaches would be simpler, but transparent, allocations on the basis of space used in the terminal, or equi-proportionate mark-ups, among others. If these approaches were adopted, the danger that parts of the business may have more common costs attributed to them than they can recover would need to be born in mind as a reality check.

Splitting the current asset base

The report considers various approaches to identifying the regulatory asset base for the aeronautical till and focuses on two of them: a financial capital maintenance approach, and a conventional asset allocation.

The financial capital maintenance approach would attempt to calculate the net present value of the *commercial* till activities, and subtract this from the current, single till, regulatory asset base. In principle this approach would not result in redistribution of rents from the airport to users. However it is likely to result in an aeronautical asset base which is well below the depreciated replacement costs of the assets. The report argues that the uncertainties in forecasting commercial revenues would make this approach impractical to adopt.

The conventional asset allocation would follow the same lines as the cost allocation. The existing assets of the airports would be split into one till or the other according to which activities they served. Where there are common assets, such as the terminal buildings, an estimate of the incremental costs of each could be undertaken (what would the cost of a terminal building be if it had no commercial activities?), and an allocation of the residual common element. Either the commercial negotiation approach, or simpler, possibly space based, rules could be used for the common asset allocations. Clearly the asset allocation adopted by the airport would need to be challenged by the CAA.

The report argues that the conventional asset allocation should be adopted.

Capital expenditure

The report argues that capital expenditure should be split between the tills using similar principles as for existing assets. The report also considers the potential incentive effects of how capital expenditure and assets are treated at future reviews. Given that one objective of moving to a dual till would be to improve investments incentives for aeronautical activities, *ex post* reviews of asset use in determining the asset base in the future may be desirable. Thus, for example, actual space used for commercial and aeronautical activities would be monitored over time. If it turned out that assets which had been attributed to the aeronautical till were in practice used for commercial activities, they would be removed from the asset base in future.

The report also argues that capital expenditure consultation with the industry would be required on an ongoing basis, with the outputs of projects clearly specified, and the airports' estimate of what proportion of the project costs should be included in the aeronautical asset base identified.

Forward looking projections

In order to set a price cap to 2008, projections of the above variables will be required on a dual till basis. While projections are inevitably problematic given usual forecasting problems and information asymmetries between the regulator and the regulated firm the report does not envisage that the problems are significantly greater for a dual till projection than for a single till projection.

CAA assessment

Overview

The CAA accepts Europe Economics' overall conclusion that implementing a dual till is feasible. Since the airports' existing accounting systems will be able to support a dual till without wholesale revision the costs are unlikely to be large. While refinements to the cost causation principles are likely to occur over time, the CAA accepts Europe Economics' view that a reasonably robust identification of costs, assets and capital expenditure attributable to the aeronautical till should be feasible in the period leading up to the Competition Commission reference. Further refinements may occur during and after the Competition Commission's review.

On the key elements of Europe Economics' analysis, the CAA's current position is set out below.

Till definition and surface access

The CAA believes that the monopolistic bottleneck approach is the right approach, and agrees with most elements of the broad till definition proposed by Europe Economics. However, one important area where the CAA may differ from Europe Economics is in relation to surface access.

Surface access has several different aspects:

- The "right" of access to the airport;
- The provision of infrastructure e.g. roads, rail lines;
- The provision of services e.g. taxis, car parks, trains, buses.

The monopolistic bottleneck approach would suggest focus primarily on the first aspect. It would seem that the third aspect could be regarded as workably competitive, on a fee for service basis with limited albeit important airport involvement. With respect to the provision of infrastructure this in practice is closely linked to the right of access. We consider that our statutory duties under the Airport Act would be best met if, where the airport was providing such infrastructure, the airport aimed to ensure that the benefits to users (including passengers) exceeded costs. Charging appropriate usage fees is consistent with this. The main concern is excessive fees compared to the economic costs.

A major argument in favour of moving to a dual till is the limitation of the scope of airport activities likely to be distorted by the existence of regulation. It is arguable that this distortion is potentially large in the case of surface access, since airport charges may be viewed as a 'tax base' for developments which may be favoured by interests beyond the benefits and costs faced by the airport and its users. There are two arguments for inclusion of surface access in the aeronautical till.

The first is that consistent with the monopolistic bottleneck approach provision of surface access is essential for airlines to use the airport. If there were no access for passengers to get to the airport, the potential market for airlines would be restricted to interlining passengers. In this way, surface access is similar to providing security clearance, walkways and space for check-in facilities within the terminals. In principle, if the airport could exploit this bottleneck to set high charges to passengers or surface access transport modes for provision of surface access. For example, it could set a high toll for entry to the airport by road. Inclusion of surface access in the aeronautical till would, it is argued, therefore limit the ability for the airport to exploit these opportunities for long term gain. As is noted elsewhere, inclusion in the single till does not aim to regulate monopoly pricing in relation to commercial activities, it merely transfers the estimated excess accounting profits to offset airport charges.

There is also a qualitative difference with some of the other bottlenecks identified by Europe Economics. First, this is a bottleneck which applies to passengers directly, rather than one which applies to airlines directly. It is a bottleneck which exists beyond the usual boundary at which the airline becomes directly involved in passenger processing (check-in).⁵

Another point is that while surface access has income streams associated with it (car parking revenues, access charges to taxis and buses, the arrangements with London Underground and railway access), the ability of the airport to exploit this as a monopolist is not clear. If monopoly prices can only be set against one mode of transport, passengers will switch to others where monopoly prices may be more difficult to levy. While it may not be impossible for airports to exploit this bottleneck, it is perhaps more difficult than for some of those directly used by airlines. Moreover, to the extent that exploitation is possible, because surface access is relatively separable from other airport activities it would be easier to address on a stand alone basis than under the aeronautical till. Competition law provisions on abuse of market dominance and the threat of future regulatory reaction to unwarranted exploitation of market power, would be the safeguards against abuse.⁶ Requirements to provide adequate surface access could be achieved through the regulatory process, even if such developments are not included in the regulated till. For example, the Competition Commission could make a public

⁵ An exception to this is the provision of remote check-in facilities at railway stations and hotels.

⁶ It is worth reiterating that inclusion of unregulated activities in the till used to determine regulated charges does not in itself prevent the airport from charging excessive prices for the unregulated activities. It merely uses the estimated profits generated to lower airport charges.

interest finding that provision of surface access was inadequate. Thus there is a case for not including all elements of surface access services in the aeronautical till, despite the fact that it has some monopoly bottleneck characteristics.

The second argument in favour of inclusion of surface access is the opposite of the monopoly bottleneck argument. This argument runs that precisely because some forms of surface access do not generate direct revenues sufficient to cover their economic costs, they should be included in the aeronautical till to ensure that they are remunerated. There might be three reasons for this. First, it might be difficult to raise charges for elements of surface access either in terms of practice (for example it might be difficult to introduce road pricing if the practicalities of toll collection would worsen road congestion), or customer perception (a view that tolls or road pricing would be unacceptable). Second, even where it was possible to introduce pricing of access, demand for those services and facilities would be insufficient to cover the economic costs of the services and facilities. The response to this argument is that if demand is insufficient to cover the economic costs, these developments should not be undertaken by commercial firms without explicit government subsidy. This leads to the third argument, which is that these developments have wider impacts, for example in terms of congestion on the local road infrastructure, which are not fully internalised by the airport and passengers, but which mean that developments (e.g. in rail) should go ahead even though they do not cover their direct costs, and consequently require subsidy from airport charges.

The CAA is not inclined to accept these arguments as a generality. It is desirable to introduce effective pricing for the various elements of surface access to the airports (for example some form of road access charging). The CAA's view is that such developments should be expected to cover their costs. By not including surface access within the till, incentives to introduce access charges to cover the incremental costs would be enhanced, and the need to cover these costs would ensure that access developments which went ahead could be expected to generate user benefits at least as great as their costs. The CAA does recognise that there may be wider externalities than surface access to the airport alone, but considers that given its statutory duties under the Airports Act this should be dealt with through wider policy instruments available to government, not through treating airport charge revenue as a tax base for wider transport developments that would otherwise be unprofitable.

However, the CAA recognises that there are likely to be exceptions to this. Where a particular aeronautical development is given planning permission on the basis that wider transport developments are undertaken, then the developments might legitimately be included in the aeronautical till on a case-by-case basis (if planning permission for T5 for example was given explicitly on the basis that various transport initiatives were undertaken, there may be a case for including them in the aeronautical till in the sense that these net costs are an integral part of the project). Secondly, the boundary between surface access to the airport, and transport links between terminals is not easily defined. Where an access development is clearly envisaged to provide transport between terminals, rather than to provide access to the airport *per se*, there is a stronger case for including part of that development in the aeronautical till.

The question of what, if any, elements of surface access should be included in the aeronautical till needs further consideration. The CAA recognises that interested parties may wish to dispute some of the arguments on surface access set out above or may have other arguments on the appropriate till definition in relation to surface access. The CAA therefore invites views and evidence on which of the following options should be adopted:

- Not include any elements of surface access in the aeronautical till (with some case-by-case exceptions linked to planning conditions and intra-airport services);
- Include some elements of surface access in the aeronautical till, but not others (following Europe Economics, short term car parking could be included, and access charges for railway services, taxis, buses and coaches, and London Underground, together with their direct and allocated common costs and assets); possible exclusion of Heathrow Express in its entirety;
- Include all elements of surface access in the aeronautical till, even those where the airport did not have market power (i.e. include long term car parks, all revenues from various transport modes, not just access charges).

Cost allocation

The CAA accepts the general proposition that direct costs should be attributed to one till or the other on the basis of cost causation. This would point to an activity based costing approach or an equivalent alternative as the best basis for an accounting identification of incremental costs of the tills. The CAA also agrees with Europe Economics that higher level engineering incremental cost estimates might provide useful corroboration of the accounting allocations. The CAA notes Europe Economics' view that the airports' accounting allocations already include elements of causally based allocations, and that Manchester is less developed in this regard.

The first stage in the process of identifying direct costs will be a re-orientation of the systems of both BAA and Manchester along the lines of the till definition. This would include a review of the various profit centres and the basis on which costs and revenues can be causally attributed to one till or the other. Where cost causation is either controversial, or under-developed, the CAA expects the airports to undertake refinements of the basis for identifying direct costs which go beyond merely re-ordering the accounting systems. This process would be undertaken by the airports, overseen by experts appointed by the CAA. The outcome of this review would be a statement of which costs could be allocated non-controversially to one till or another, those areas of cost causation which remained controversial and were of a large enough scale to merit further investigation, and a review of the common costs which required allocation.

The CAA also notes that there are genuine common costs across the tills which cannot be causally determined and that consequently require allocation. The CAA is not convinced that the "commercial negotiation" approach proposed by Europe Economics is

likely to be useful as the primary rule for allocating common costs, and has a preference for simpler more transparent rules which are widely understood, can be monitored and audited over time, and provide for a reasonable basis for common cost allocation. However, it recognises that demand side reality checks should be considered where they are likely to be material.

Until the common costs have been properly identified, the allocation rules to be applied to them must necessarily be fairly general. Europe Economics identify the following areas as raising the most difficult problems:

- The terminal buildings and areas of the terminal buildings;
- Airport access;
- On the airside in relation to cargo terminal, flight catering and maintenance facilities;
- Overheads/common services.

For terminal buildings, and common costs of terminal services, the CAA's view is that a relatively simple rule which allocated common costs and assets on the basis of space used by activities which are clearly wholly attributable to the aeronautical and commercial tills. It may be appropriate to sub-divide the terminals into their core component areas, and allocate some costs according to space allocations within these sub-divisions. The advantage of using space is that it provides a reasonable basis for the allocation, but is also relatively easy to monitor in terms of actual usage. That said, the CAA would consider whether there were some exceptions that should be considered, for example allowing for a premium on commercial facilities located in prime positions or whether there are better allocation rules consistent with the above criteria.

On airport access, as noted above, one possibility would be to remove airport access activities and costs from the till in its entirety. Only transport around the airport would be included, not access to the airport. A second option would be for some elements of surface access that raise particular problems could be removed, such as Heathrow Express. A third option would be for the incremental and common elements of surface access could need to be identified, and an allocation of common costs undertaken. The common cost allocation could be directly based on the allocation of common costs in terminals, or some other measure.

The common cost allocation for airside facilities could be based on the proportion of space on the airfield that these activities accounted for. If this proves to be complex in practice, the CAA would consider bringing the commercial activities which are airside back into the regulatory till for reasons of practicality.

Overheads and common services may be in part attributable to one till or the other on the basis of cost causation. However, they will include substantial elements of genuinely common costs for which a simple allocation rule is desirable. The pro-rata allocation suggested by Europe Economics would seem reasonable.

Asset allocation

Of the two approaches considered by Europe Economics, the CAA will investigate both options. Europe Economics did not support the financial capital maintenance approach on the grounds that valuing the commercial business would be difficult given forecasting uncertainty. While the CAA accepts that there would be an element of uncertainty, it is not minded to eliminate this approach as one option at this stage.

For the financial capital maintenance approach, the CAA will require an estimate of the market value of the commercial business. For this it will require an estimation of the net present value of the commercial activities. This would then be subtracted from the current asset base. The requirements here are similar to those needed for the single till price cap, except that the projection is required into perpetuity, not just until 2008. However, a reasonable estimation should be possible as this is a standard business valuation problem.

There are two ways of handling the conventional asset division. One would be to simply allocate all assets into one till or another, and allow for cross charges between the businesses where they served both. The second would be to split joint assets into one till or the other. The latter is likely to be more practicable, at least at this stage. The CAA will appoint experts to review the airports' asset register based splits, identifying those directly attributable to one till or the other. For those which have common elements, estimates of the incremental costs to each till would be identified on a causation basis, and the residual common element split along similar lines as considered for operating costs (possibly space in the terminal for terminal buildings etc.)

Capital Expenditure

The CAA agrees with much of Europe Economics' views on the *ex post* treatment of capital expenditure⁷, and agrees that an *ex ante* division of the capital plans will require review by the CAA. The principles would be as for the conventional asset division.

Projections

Projections of costs on a dual till basis would be based on a challenge of the airports' business plan, in much the same fashion as the challenge to the business plan which would occur under the single till.

⁷ If the tills should prove to be unduly 'leaky' in practice, a full accounting separation of the two businesses could be considered, and possibly a full corporate restructuring. However, the CAA would wish to observe the dual till in operation for a reasonable period before considering such moves.

Process prior to the Competition Commission reference

The CAA proposes the following plan:

- **May 2001.** CAA publishes cost allocation principles and process, along with Europe Economics report. CAA appoints expert advisers. CAA invites submissions on the treatment of surface access.
- **May-July 2001.** Airports revise cost allocation systems to meet these principles, with oversight by CAA experts. Airports prepare statements of direct costs attributed to each till, identification of key areas of difficulty in identifying cost causation, identification of common costs, proposed allocations of common costs.
- **May-July 2001.** Airports prepare asset split with oversight by CAA experts. Airports prepared Capital Expenditure split, with oversight by CAA experts.
- **May-July 2001.** Airports prepare engineering estimates of incremental and common costs of the tills for review by CAA;
- **July 2001.** Airports present cost and revenue forecasts for aeronautical till to 2008; Airports present estimated net present value of commercial business.
- **July-September 2001.** CAA preliminary challenge of airports' allocations and projections. Results included in September paper.
- **October-December 2001.** If CAA has decided to pursue dual till as an option, further challenge of allocations and projections prior to Competition Commission reference.
- **February-July 2002.** Competition Commission review. Possibility of further revisions at instigation of Competition Commission, or supplementary submissions by CAA to Competition Commission.
- **2003-2008.** If dual till is adopted, further refinements to allocations, cost drivers and output specification to support next review. Refinement of systems for rolling forward asset base and measuring usage against forecasts. Refinement of system for consultation on capital expenditure on dual till basis.

It is envisaged that CAA experts would oversee the preliminary estimates by the airports, and would advise on subsequent challenge. They would comprise experts in accounting and industry experts.