

REFORMING AIRPORT REGULATION

Dieter Helm

**University of Oxford and
New College, Oxford**

June 11th 2007

1 Introduction

The current debate about the future of airport regulation in the UK has arisen for a variety of reasons, which have together built up a substantive case for reform. In addition to the customer and airline complaints on the quality of service, the takeover of BAA has changed the context of the periodic review, revealing new information, and raising substantial issues of ring-fencing and the protections in place in the event of failure by the new owners. The content is further altered by the inquiry of the Office of Fair Trading (OFT) and the issue of break-up of airport ownership in the UK.

The quinquennial review of BAA's charges inevitably draws in BAA to a closer scrutiny of its activities, and highlights the shortcomings of the process that requires an automatic reference to the Competition Commission (CC). This time around, BAA's credibility has been exposed through the takeover process and its defence strategy. The usual 'game' at periodic reviews over capital and operating expenditure (CAPEX and OPEX), cost of capital and output performance proved unsustainable, as the two competing bidders revealed a much higher valuation of the business, and the possibilities of a very different financial structure than those BAA might otherwise have projected to its regulator.

Foreign ownership has also raised some concerns in political circles, although the inability to do much about a fellow EU Member State source of the takeover (or even its special—arguably anti-competitive—tax treatment of bids) meant that most attention was paid to the highly geared structure, and the possibility of a re-run of some of the negative experience with the financial structures of National Air Traffic Services (NATS) in the UK (of which the airlines themselves now have some experience).

In other utilities, customers are protected from the consequences of particular financial structures by the ring-fencing of licences and the special administrator facility. In the case of airports, there are no licences, and hence no hook on which to create a ring-fence which would have the security that is provided in other utilities.

These concerns have raised the fundamental question: *is the regulatory regime fit for the purposes of the next two decades or so?* The regime was created through the Airports Act 1986, in a very different context. Airport competition was then in its infancy in the UK, and the major political consideration was to ensure that BAA would invest (albeit that this was in a world before budget airlines).

The Civil Aviation Authority (CAA) has been given an explicit duty ‘to encourage investment in new facilities’. BAA’s monopoly over the three south-east airports was granted in the context of the Stansted developments, and their initial perceived inability to be financed on a stand-alone basis. BAA’s combined balance sheet, its protection from competition, the ability to cross-subsidise, and the single till were all part of the package aimed at the encouragement of investment in a planned, timely and financially attractive way. Ministers were also probably minded at the time of the advantages of a single entity which might prove more amenable to political interests and hence facilitate aviation policy as it unfolded, given the ability of the monopoly to pass through costs.

(The subsequent experience of the ‘independence’ of regulators from such pressures had yet to become manifest, and the lessons from the independence shown by McKinnon, Littlechild and Spottiswoode in the utility sector were yet to be witnessed.)

There was also the important detail of the privatisation itself being a success—in 1986, while BT had been already privatised, the gas privatisation was coincidental (needing an army of Sids to pull it off) and the current confidence about selling nationalised assets was far from pervasive then.

In referring the structure of BAA to the CC (in addition to the periodic review conventional reference), the remit is a narrow one—on competition and the market failures which come from monopoly. However, these are not the only dimensions of the public interest and the wider context of market failures and government policy need also to be kept in mind. This policy framework includes the 2003 White Paper with its expansionist ambitions (DfT 2003), and the contradictory need to address the environmental impacts of climate change.

The OFT (and the CC) is concerned with one market failure—monopoly and market power—but there are others. The presence of environmental externalities—specifically climate change—suggests a very different policy context and set of priorities for airport expansion and regulation. Economic instruments such as tradeable permits and taxes cannot deflect the responsibility within the regulatory regime to determine whether the expansion of airport capacity envisaged in the 2003 White Paper can stand. Airport *policy* needs to resolve this deep conflict of objectives—between the demands for greater air travel, on the one hand, and the CO₂ objectives on the other—and the results need to be internalised in the CAPEX and OPEX assumptions embedded in the

regulation. BAA, and other airport owners and operators, are caught in the uncertainties which the failure to resolve this conflict of objectives has placed them in.

These various and disparate reasons—customer dissatisfaction with service; the takeover and high gearing; competition; and climate change—together add up to a powerful case for reconsidering airport regulation in the UK. This paper sets out how they might be addressed. The structure of the paper is as follows. Section two reviews the market failures—the rationale for regulation. It considers not only monopoly and market power, but also coordination failures, externalities and the public good of security of supply (and, in this context, the wider externalities to the economy), and sets against these the costs of intervention and the impact of changing the regime on market expectations. Section three reviews systematically the problems with the existing regulatory regime, and the reason why, after two decades, it is argued to be no longer fit for purpose. Section four then puts forward a set of reforms, and section five concludes.

2 The economic rationale for intervention

All markets fail to match up to the demanding requirements of economic efficiency. Failure is endemic—indeed, it is the fact of market failure that enables economic rents to arise and, hence, provides the incentive to compete (otherwise there would not be sufficient profit to motivate entry). Failure is also multiple: markets fail because of market power, externalities, public goods, information deficiencies, and so on. Multiple market failure is the norm—and any regulatory regime which focuses exclusively on one of these failures without regard to the impacts on the others is almost certain to be inefficient. The OFT (and the CC) have the exclusive focus, and, as we shall see, their partial concerns cannot provide an efficient framework for regulation. But before

considering the multiple market failures, we need also to consider the costs of regulation.

The policy question is not whether markets fail, but whether they fail sufficiently badly to motivate intervention. The latter criterion requires that the expected costs of intervention do not exceed the expected benefits. This, governmental, failure is also likely to be large. Governments, and regulators, lack information, cannot predict the future, and are open to capture by vested interests. For these reasons, the starting point is that the case for intervention has to be made, and the form of intervention itself has to meet certain efficiency considerations. Some intervention instruments are blunt, crude and more open to capture (such as the command-and-control mechanisms prevalent in the nationalised industries in the 1970s and 1980s), while others (market-based instruments) are less vulnerable.

With these strictures in mind, what are the market failures in airport provision?

The main ones are:

- the monopoly/market power concerns;
- coordination and system characteristics;
- externalities and environmental regulation;
- security, continuity of supply, bankruptcy and substantive failures.

These are examined below.

The monopoly/market power concerns

Market power is an exhaustively researched topic, and it is not the intention here to summarise the main findings. It forms the basis of the OFT paper on UK airports (OFT 2006, OFT882). There are a number of tests that relate to the ability of incumbents to

raise prices relative to the benchmark counterfactual of what would have happened in a competitive market. These tests are far from purely factual. Indeed, the need for a benchmark makes all such calculations in an important sense theoretical—the counterfactual cannot be directly observed. And, here, there are lots of difficulties, requiring judgements. What are the underlying cost conditions of the industry? Are long-run average costs declining? How is lumpy capital taken into account?

Competition is, by its nature, dynamic, and entry conditions over time can dictate the scope for the exercise of market power. The existence of excess profits itself is an incentive to enter (and hence too tight a regulatory price cap is an entry deterrent). Then there are non-price barriers to entry, some of which are created by intervention. Planning is an obvious example.

In the airports case, *there is unlikely ever to be a competitive market*, although there will always be elements of competition. The land space is limited, and hence the argument is about whether the market power failure could be ameliorated—in particular, by separate ownership—rather than solved. The subsidiary question is then whether this amelioration would be sufficient to negate the need for price regulation, on the grounds that the government failures are likely to be greater.

Coordination and system characteristics

A second market failure is that of coordination. The reason why airports were brought under the umbrella of BAA was not accidental: it was argued that airports—like electricity, gas, rail, road, telecoms and postal services—needed to be planned and their operations and expansions coordinated. Though this argument went out of fashion with the new economic consensus in the 1980s and 1990s, its underlying logic was not automatically abolished.

The coordination failures relate to the costs of uncertainty and their effects on the timing, location and quantity of investment. Decisions about building one runway have profound economic consequences for other airports—existing and planned. For example, building new runways at Gatwick and Heathrow would alter fundamentally the economics of Stansted—and Bristol, Southampton and Birmingham. The greater the economic impact of lumpy CAPEX decisions, the greater the benefits of coordination; otherwise, the cost of capital will rise significantly. The problem is a game theoretic one, which can easily lead to inefficient strategic behaviour, or, as in the prisoner’s dilemma, no investment at all.

Such considerations raise the question of whether the airports have system-wide properties that are greater than the sum of the parts—whether there are public good elements. It was axiomatic to the nationalised industries world that these system properties were pervasive, and it is a core reason why the three south-east airports have been run as a single integrated entity until recently. It is also the reason why major new airport capacity has, in effect, been determined by government in cooperation/coordination with the industry as a whole.

Externalities and environmental regulation

Until recently, consideration of environmental externalities at airports was confined largely to noise and local air quality constraints. These externalities remain significant. However, climate change has introduced a new dimension, and it is a question for the airports system as a whole rather than just its individual components. Current airport expansion plans, as set out in the 2003 White Paper and reflected in BAA’s recent CAPEX plans, are inconsistent with the government’s overall climate change policies. Furthermore, attempts to drive down prices to mitigate the effects of market power

actually make the climate change (and indeed other) externalities worse—a feature which has been apparent, for example, in the electricity industry.

Security, continuity of supply, bankruptcy and substantive failures

A final market failure that has required intervention is security, and in two senses: physical security, and the security of supply to the rest of the economy.

Physical security is a core function of government, providing for defence and protection of the lives and property of its citizens. For these reasons, governments, not companies, define security requirements at airports, regulate the flow of people, and provide policing and other security services. The reasons are related to the public good elements and to the incentives on individual companies. Airports might, for example, compete to provide lower security at lower cost in the absence of common imposed standards. (In addition, governments provide safety regulation covering aircraft, and such health and safety regulation is imposed from outside through intensive regulation.)

The capacity margin—and hence the security of supply—arises because of the complementary goods nature of infrastructure supplies. If infrastructure is in excess supply, there is an additional cost spread widely over the economy; if it is in deficient supply, the costs are asymmetrically large. Put another way, customers demand not only the service itself provided by airports, but also the insurance that, should they wish to travel by air, the capacity will be readily available.

Security of supply thus requires an element of excess capacity. But this is not necessarily in the interests of incumbents (especially with market power) to provide: for excess capacity reduces the economic value of existing assets for the reasons noted above. Hence, it might be profit-maximising to keep the market ‘tight’, thereby making sure that the entire existing infrastructure is fully used and remunerated. Prices rise as

capacity tightens, and then fall back sharply as new lumpy investment comes on stream. This is the ‘saw-tooth’ phenomenon, in the absence of offsetting regulation. In the airports case, there is an extra twist: if capacity is short, people crowd into the retail activities of the airports and hence raise returns under the single till. The implication—in the absence of a regulatory asset base and supporting regulation (itself reliant on market power)—is that investment will be sub-optimal.

The relative weights to the market failures

The OFT has focused almost exclusively on the market power problems, to the effective exclusion of the other three discussed above. In doing so, it reflects its (and the CC’s) narrow remit. But there is nothing in economic theory or practice that supports this contention. In particular, the environmental effects may be as important—and, for many, more important—while the coordination and security of supply market failures have provided the very rationale for the current ownership and regulatory structure of the industry. *Simply focusing on one type of market failure is itself very economically inefficient, and it is why the OFT/CC findings (based on their narrow legal remit) are unlikely to provide an economically efficient set of recommendations.*

3 Problems with the existing regulatory framework—is it fit for purpose?

Some 20 years after its creation under the Airports Act 1965, BAA was privatised in 1987 as part of the gathering utility privatisation programme of the second Thatcher government. Its sale followed on from BT in 1984, and coincided with that of British Gas. At this early stage, privatisation was much more controversial, and the experience of financial markets in dealing with large issues and politically sensitive infrastructure was limited. For these reasons, monopoly was regarded as a strength in privatising assets, and even where competition was deliberately limited in order to effect sales (as

in British Gas), the government still had in the British Gas case to turn to retail investors to augment traditional capital markets (the famous Sids).

Timetable to privatisation

1985 (Dec)	MMC Report on BAA
1985	White Paper on Airports Policy (Cmnd 9542)
1986 (July)	Report on Airports Regulation published (NERA)
1986 (July)	Airports Act receives Royal Assent
End 1986	Designation of Heathrow, Gatwick, Stansted and Manchester Airports for the purposes of economic regulation. BAA's airports applied for permission to levy charges on RPI – X formula applied to all three London airports jointly, allowing some rebalancing between Gatwick and Heathrow, on the one hand, and Stansted, on the other.

The current regulatory framework within which BAA operates is a product of the politics of the mid-1980s, when the concerns were rather different and experience of regulating privatised utilities was very limited. While the Secretary of State at the time (John Moore) stressed the importance of efficiency incentives from RPI – X regulation (on the back of the NERA consultancy report), it is notable that debate focused on investment and the need to keep an integrated BAA in place. The then Labour Opposition, in particular, opposed any break-up of the main airports' ownership.

The Airports Act 1986 has three unique features that were not to be repeated in subsequent utility privatisations.

- **Regulation is under statute not via a licence**, although each airport holds a public use licence which principally requires that: airports are open to all aircraft on equal terms and conditions (ie, a non-discrimination requirement); the operator is competent to carry out the functions; and no changes can be made to the physical configuration of airports without the CAA's agreement. The Secretary of State designates airports for the purposes of economic regulation. In other utilities, regulation is via the licence itself and its amendment (although who can amend it, and how, varies from case to case).
- **The CAA has very different general duties to those of the other utility regulators.** Whereas, prior to the Utilities Act 2000, the duties of other utility regulators focused on the promotion of competition subject to financing functions, they are now largely focused on a single primary duty to promote the interests of customers, subject to a financing functions duty on the regulator. The CAA's general duties notably include the duty: 'to encourage investment in new facilities at airports in time to satisfy anticipated demands'.
- **Automatic reference of periodic reviews to the CC** (previously the Monopolies and Mergers Commission, MMC) for the designated airports.

These three distinctions make BAA's regulatory regime an anomaly in the utility regulatory system. As a result, while the MMC and then the CC have tended to treat the price cap determinations very much as if the system were the same as for other utilities, over time the gulf in the legal basis has widened. There have been a number of separate reasons for this divergence:

- the CAA has interpreted its powers in a way that has led to a search for regulatory innovation—notably in the run-up to the current review, but also in

respect of the numerous investment incentives and time periods built into the BAA formula construction;

- the tension between the investment requirements and the competitive issues in relation to the London airports has grown as demand has risen and as Stansted has become more economically viable;
- the single till has not been amenable to the kinds of licence amendment process that other utility regulators have used to prise apart competitive from monopoly activities;
- the recent takeover bidding process raised substantive issues about ring-fencing the core activities, and the CAA found itself only able to use the broad public use licence conditions for competence, and hence was in effect powerless to impose extra undertakings under the threat of licence amendments—or indeed actual licence conditions (as has happened in other utility takeover cases).

In terms of the detail of the regulatory framework, successive CAA and MMC/CC inquiries have produced a number of unique features, including:

- the retention of the single till (despite debate and dispute at the 2002 review between the CAA and the CC, with the CAA proposing a dual-till approach);
- the ten-year indicative price cap;
- pre-funding of Terminal 5;
- funding of assets in the course of construction;
- cross-subsidies between the airports, until the recent unbundling of the price caps limited (but did not eliminate) its scope.

Of these, the single till is probably the most questionable. Airport services to airlines are largely the runway and the terminal services in respect of passenger check-in, security check-in and lounges. But the charging basis is in terms of the returns to the retail activities—as if airports are basically mechanisms for getting people to shop. This is economically inefficient: the result is that an airport with highly constrained capacity has very low charges (eg, Heathrow). Instead of rationing off demand from Heathrow to other less congested regional airports, the single till produces the opposite incentive.

This list of differences raises the question of the comparative costs and benefits of the conventional utility model versus the CAA model—to which we turn in the next section. However, in recognising the characteristics of the airport sector, attention needs to be placed on the other market failures listed above, since the comparison of models is almost exclusively about market power.

Coordination and system market failures go a long way to explaining why BAA was first created under the 1965 Act and why the Scottish airports were transferred to it in the 1970s. In the pre-information technology days, market-based coordination was problematic in all infrastructures and the integrated company structure provided for an element of command-and-control within which such coordination problems could be addressed. For most infrastructures, more decentralised structures have become possible because of the new information technologies. Markets have been established because information can be transferred cheaply and speedily—and markets require such informational efficiency as a necessary condition for their functioning.

This aspect of coordination failure arguments for an integrated ownership structure has now largely gone (though there may need to be industry-wide coordination committees

for specific aspects, run through the CAA). In planning CAPEX, however, the case for coordination remains, though not necessarily via common ownership.

At present, BAA is subject to three broad CAPEX planning mechanisms:

- the White Paper process—most recently, the 2003 White Paper—which sets out the government’s view of the expansion of air transport and supporting capacity;
- the CAA’s powers under the public use licence in respect of changes to the physical aspects of airports;
- planning law generally and the planning inquiry process.

Within these constraints, BAA proposes its CAPEX programme, as part of the periodic review process and its longer-term business planning, and it is BAA that applies for planning permission. This enables the Secretary of State (and the CAA) to maintain the practical fiction that BAA is deciding what CAPEX is appropriate, whereas in fact it is very much conditioned by the political and regulatory players (which, of course, BAA influences).

The important point to make here is that the need for an element of coordination does not require that there be an integrated company. It is possible (and indeed may be desirable, as will be discussed in the next section) to separate out the coordination function from the company structure and integrated ownership of airports.

The issue of surface supporting infrastructure clearly needs an element of coordination too, but again there is no obvious reason why the ownership of airports needs to be concentrated to achieve this—although there may need to be more extensive cooperation between transport regulatory bodies.

Environmental impacts of aviation are almost entirely absent from the regulatory regime. In particular:

- the CAA does not have any specific environmental duties, unlike the other main utility regulators which now have secondary duties with regard to sustainability;
- the influence of the Environment Agency is limited (unlike in water and energy);
- the 2003 White Paper makes scant comment on the environmental impacts of the growth in aviation.

Whilst this absence of concern may have been appropriate in the circumstances of the 1986 Airports Act (Margaret Thatcher did not ‘discover’ climate change until 1988), it conflicts directly with the context now. In particular, it is hard to see how the 2050 target to reduce CO₂ emissions by 60%; the 2010 target to reduce emissions by 20% from their 1990 level; and the Draft Climate Change Bill (2007) are compatible (except, of course, by excluding aviation emissions).

There are several areas where environmental aspects feed into the regulatory regime. These include: the determination of CAPEX; the operation of airports to minimise emissions; and the relationship between airports and surface transport.

Whilst it is arguable that the primary source of demand for air travel should be addressed through taxation to reflect the value of the externalities, in practice capacity constraints will determine the growth rate, and hence the BAA CAPEX programme cannot be exempt. Put another way, since the price caps are based on volume forecasts, and demand is influenced by externality taxes, long-term investment needs to be planned on the basis of assumptions about the level at which these externality taxes might need to be set in order to meet the overall CO₂ targets. Even if the taxes are not

levied, the capacity constraint will reflect what they should have been in order to internalise the externality.

Finally, the security of supply considerations—in terms of both physical supply and capacity margins—are treated differently in aviation. These differences include:

- under the Aviation Security Act 1982, the Secretary of State has powers to direct airport operators in respect of violent actions and a host of ancillary powers in respect of immigration and the control of people through airports. Other utilities operate under reserve powers, but the airport case is much more clearly defined because of the obvious threat from terrorism;
- there is no duty to meet all reasonable demands and provide a universal service, as in electricity, water and postal services. Air transport has not traditionally been treated as a basic social primary good, but rather as a more conventional service. Nevertheless, there has been very active management of routes, slots and the maintenance of services, and in some cases there are explicit subsidies. The coming of mass holiday cheap travel has, however, shifted the balance, and implicitly politicians recognise the demand for an element of universality.

Whilst a capacity margin and security costs can be passed through in a monopoly, recognising the impact on all other airports of individual large investments, and in particular the problems of marginal versus average costs when new (usually excess) capacity is brought onto the system, the problem remains as to how to underwrite such capacity margins in a more competitive market. The solution at Stansted was cross-subsidy on the back of the market power at mainly Heathrow, but also Gatwick (in part, by limiting Gatwick's ability to undermine Heathrow's market power).

Thus, if excess capacity is desirable from the perspective of the economy as a whole (the complementarity argument), it is unlikely that a fully competitive airport sector will provide it. The problem of cross-subsidy therefore arises—the Stansted problem of the future. If the market power solution employed to date, through BAA’s integrated ownership structure, is undermined through break-up (and already through separate price caps), some other mechanism will be required to underpin new marginal capacity. Alternatively, the system will be run below the optimal capacity margin and the investment will be sub-optimal from this perspective (though the constraining of demand may boost profits).

To date, BAA has accepted the implicit political and regulatory requirement to develop new capacity—notably at Stansted—and this was indeed part of the ‘implicit’ privatisation deal. T5 has also worked through the regulatory regime, with the regulator allowing the rise in prices at Heathrow ahead of completion and the revenue was extracted through market power. Going forward, some other method of levying excess monies may be required—or, alternatively, the environmental constraint may be so high as to make excess demand better choked off through deficient capacity. (Again, there will be difficult regulatory problems: the incumbents can profit-maximise on their existing assets from the abnormal profits that result from the capacity constraint.)

4 Reform proposals

Whilst there is never a perfect match between regulatory regimes and the public interest, the gap between the policy drivers and market failures now evident in the aviation sector is large. The previous regime lasted 20 years from the Airports Act 1965, and after another 20 years the framework set out in the Airports Act 1986 has become anachronistic. It is highly unlikely that further tinkering with the existing regime (for

example, divesting BAA of one or more airports) will solve the underlying problems. Indeed, if such divestment occurs in the absence of reform of the regulatory regime as a whole, it may produce very limited benefits—largely confined to the gains from different management teams, somewhat akin to the arguments for comparative regulation in the water industry.

The starting point therefore should be the policy and regulatory framework as a whole, rather than the other way around, with the details of specific airport ownership. The OFT/CC's narrow competition focus allows only a very partial view of one market failure. As explained in section two, it is but one of the market failures, and arguably not even the most important one. It may not even result in a 'solution' to market failure—replacing an integrated monopoly with a concentrated oligopoly. Further, even solving partially for this specific failure may actually exacerbate the others, unless accommodating changes are also made. The existing legal framework probably makes this an impossible task.

The reform agenda can be divided into five parts:

- the policy framework for the aviation sector;
- the powers and duties of the regulatory body—the CAA;
- the ownership structure of airports in general and BAA in particular;
- investment and competitive auctions;
- specific changes to the detail of regulation and periodic reviews.

i) The policy framework

Across the infrastructure sector, government has gradually recognised that it is its task—and not that of the regulators or the companies—to define the broad policy context, especially in respect of investment. Governments have the responsibility in

practice to ensure that infrastructure is provided in a timely way, consistent with its broad overarching objectives.

Since 1997, there has been a gradual recognition and then implementation of this requirement, after the excess supply years of the 1980s and 1990s, for most infrastructure networks (notably in energy, and in the case of Stansted, airports too). The priority of asset-sweating under excess supply has given way to pressing investment needs across infrastructure networks, and historically sectoral policies have been developed in such periods of excess demand. The reasons are multiple, but in addition to the coordination failures and the complementarity to the rest of the economy, there has been a more narrow political motivation—in a modern democracy, the electorate expects to have such infrastructures available, and votes accordingly.

Since 1997, there has been: an integrated transport strategy (DETR 1998) and a 10 Year Plan for rail transport; two Energy White Papers (DTI 2003 and 2007); a series of water strategy papers; and strategies in respect of broadband.

In the aviation case, the 2003 White Paper set out a framework. This is already dated, and it urgently requires updating. The 2003 White Paper on Air Transport fails because it does not reconcile the environmental objectives with the projected demand. More specifically, it provides little clear guidance on the core large infrastructure projects, notably additional runways and terminals. In leaving this to BAA to bring forward investment programmes for consideration by the regulator, core decisions are left hanging ‘in the air’. As a result, uncertainty in the industry is considerable, timetables slip and the supply constraints continue to bite. The coordination market failure is thereby manifest. Policy statements under the proposal contained in the 2007 Planning

White Paper may assist in this process, though there remains much uncertainty as to how (and when) these might be crafted.

The current unhappiness with the services that customers receive is the result, particularly at Heathrow, and it is one of the motives for the current debate noted in the introduction above. Passengers experience what happens at the limits of capacity, and liken it to the 'third world'. (This experience and reaction is similarly witnessed in the rail sector, and is well reflected in the Eddington Report on transport (DfT and HM Treasury 2006)).

It is not just a new White Paper that is required, but also a policy framework process that enables it to be updated as new information becomes available. This also needs to be embedded in the regulatory architecture, and hence the CAA should be required 'to have regard to' its contents.

ii) The powers and duties of the CAA

The powers and duties of the CAA are out of line both with practices elsewhere in the utility sector and with the context of the 2000s and beyond. They are outdated and the requirement is to tidy them up. It is beyond the scope of this paper to suggest specific clauses, but the following points should be taken into account:

- there should be an overall duty in respect of customers;
- there should be a requirement to take into account the government's policy framework;
- there should be a duty in respect of the environment, and to have regard to the government's policy framework on climate change and its specific targets

(linked to the role of the proposed Climate Change Committee and carbon budgets, as set out in the Draft Climate Change Bill (2007));

- the investment requirement duty should be replaced with a duty to meet reasonable demands, subject to the environmental constraints.

The CAA's functions in respect of periodic reviews should be brought into line with those of other utility regulators. Specifically—within the context of a licence regime (see below)—the reference to the CC should be as a voluntary appeal option by the regulated companies, not automatic.

iii) The introduction of a licence-based regulatory regime

Regulation by statute should be replaced by regulation by licence, and the licence should be subject to revision on the basis of proposals from the CAA, subject to appeal to the CC by the regulated companies.

The licence should not be set for the group as a whole, but at the level of the individual airport's core activities, including those assets essential to the delivery of the functions that the company undertakes to discharge as a condition of holding the licence. The licensed entity should be a distinct legal corporate body, whether owned within a group or independently owned.

In particular, the licence should require:

- a ring-fence around the core airport activities, requiring separate asset registers, valuations and transparent accounts;
- a cash lock-up in respect of the ring-fenced licensed activity;

- a clear specification of functions, with outputs included within the licence clauses;
- an annual certification process by directors of the licensed entity that they have sufficient funds to finance their functions;
- informational requirements in respect of disclosure and regulatory accounts.

iv) Ownership of airports and BAA's integrated structure

Provided that steps i) and ii) above are implemented, there is no reason why BAA needs to own the three south-east airports, and there are a number of reasons why there may be public benefits from divestment, including:

- the comparator information that would become available from separate management;
- some limited scope for competition;
- greater protection for customers in the event of financial failure by any one of the resulting companies (rather than all south-east airports being jointly exposed to the consequences in the event of a collapse of a highly geared financial structure).

However, if there is separate licensing and a dual-till approach (see below), the scope for abusing market power by an integrated BAA will be considerably reduced and hence the case for break-up is much less.

v) Investment

Under i) above, the government will have the ultimate responsibility for identifying large capital projects. However, there is no reason why these should be developed by existing airport operators, and there is considerable scope to auction such projects. This

would introduce a major new competitive element—in particular to BAA. Such competitive auctioning could apply in particular to new runways and terminals. Indeed, if this model were to be adopted, the case for maintaining a single integrated company with a regulatory asset base (and hence a lower cost of capital) would be strengthened.

Auctions would establish the efficiency cost, but not whether customers would be willing to pay. This will vary from case to case. However, should a Stansted-style investment emerge for which the bidders in the auction were uncertain about whether the returns would justify the investment—but this is what the government wished nevertheless to see developed—a variety of mechanisms might be used, and some form of levy is likely to be the least distorting to competition.

vi) Specific regulatory changes

There are a number of specific changes to the regulatory regime which may be appropriate in respect of the current periodic review. The main ones are:

- a ten- rather than five-year price cap, with an indicative further five years;
- specific regulatory contracts in respect of large-scale discrete CAPEX projects;
- indexing the cost of debt to market rates;
- a split cost of capital, with a higher equity return;
- a dual till, with regulation focused exclusively on the core services, as set out in the licence proposal above.

The third and fourth proposals have been extensively developed elsewhere (see, most recently, Helm 2007).

5 Conclusions

After two decades, the 1986 Airports Act has run its course. There needs to be a new Airports Act, which takes account of the massive changes to the aviation sector (since then, and also the new policy priorities—notably, the environmental impacts of aviation).

The regulatory regime set up under the 1986 Act was designed with different purposes in mind, and now needs to be modernised to take account both of multiple market failures and the lessons learned from the experience of regulating other utilities.

Recent developments—notably the highly geared financial structure which has accompanied the takeover of BAA—have added urgency to the need for reform. The CC inquiries in respect of competition generally and the periodic review provide an opportunity to reconsider some aspects of the regulatory regime, but the CC's remit is a narrow one. It is but one input into what now needs to be a much wider review.

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