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Introduction

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In committing itself to providing a 30-year framework for air transport policy, the government recognised that the existing approach of ad hoc interventions, delayed decisions and the consequent congestion could not be allowed to continue indefinitely. A ten-year transport strategy had been set out for the railways (DETR, 2000); a new energy policy was eventually produced at the end of a lengthy consultation period (DTI, 2003); and a longer-term framework for water published too (Defra, 2002). The government recognised that markets and competition, though important, would not be sufficient for the development of core infrastructure.

But while the recognition that the current state of affairs is unsatisfactory is a necessary step, finding a 'solution' is proving altogether more difficult, and it is unlikely that the forthcoming Air Transport White Paper will provide much more than a partial answer. The reason is that a 'framework' is not the same as a 'decision'. Deciding whether to build more airports and/or runways, and deciding where to put them, form *part* of an aviation sectoral framework, but there are many other components. These include the prices for aviation services, the interconnections with other infrastructures, the environmental constraints, the design of the aviation markets (including slots) and the regulatory framework.

As many commentators have recognised through the government's consultation process launched in 2002 (DfT, 2002), there are two ways of going about constructing the logic of the White Paper. The first is to sort out all the distortions in the market (including pricing and environmental factors) and then allow the investment decisions to be taken against the 'correct' demand and supply parameters. The second is to decide what to build and where, and then leave the distortions to be worked out subsequently.

For very good reasons, the first approach is the right one. It still leaves decisions to be reached which only government can make. But these decisions are better informed, and the resulting economic benefits are likely to be much greater. The second approach is inevitably one that lends itself to politics and political pressures, and is a process which tends to use analysis as an *ex post* rather than *ex ante* justification.

Air Transport and Infrastructure: The Challenges Ahead

The sheer scale of the distortions in aviation indicates how important it is to try to address these *first*. Decisions based on a structure in which one of the busiest airports in the world (Heathrow) has among the lowest prices, where cross-subsidy is endemic, and where the environmental damage is largely unpriced, are certain to be wrong by a very considerable degree.

Taking each of the major distortions in turn, the pricing of airport services has grown up on the basis of cost recovery and cross-subsidy. A single till combines revenues so that the economic costs of landing are greatly influenced by how much shopping goes on at airports. While this might be rational if the pricing function of an airport were shopping, it makes little sense as an *aviation* policy.

The consequences are obvious: the lower the landing fees at Heathrow, the higher the demand for slots (and therefore runways) and the greater the substitution from other regional and South East airports to Heathrow. These issues are not new, and have been raised at successive Monopolies and Mergers Commission and Competition Commission reviews of BAA's fees, charges and price caps.

Relative pricing between aviation and other forms of transport—notably railways, but also roads and ferries—is also distorted. The railways and roads have no clear economic asset valuations on which to base capital charges. There are no clear current-cost valuations of either to compare with BAA's accounts. For roads, there is also no link between the capital costs and asset depreciation and road charges. Fuel taxes are high, but unrelated to investment. For Network Rail, there is not as yet even a proper asset register, and the track access charges were developed on the back of a required return for the regulatory asset base, determined by what the then Conservative government could sell the railways for. In any event, the scale of capital subsidy in the railways is now the overwhelming and dominant factor for investment.

The treatment of the environment and environmental impacts in aviation and between aviation and other transport modes is very crude, and often effectively ignored. Aviation does not remotely pay for its direct environmental externalities—on land use, on CO₂ and other gas emissions, and on noise. Furthermore, the indirect costs are ignored too. Large-scale tourism and international travel brings great benefits to individuals and tourist-based economies, but it has also destroyed key habitats, contributed to biodiversity loss, and encouraged the transmission of diseases.

The scale of these effects is understandably the subject of much debate. Aside from the obvious lobby interests on both sides, the tools of cost-benefit analysis provide an evaluation mechanism, but the outcome is bound to be uncertain. Direct estimates of noise value and CO₂ emissions are relatively well developed. Those of land-use loss, habitat and biodiversity are less so. As David Pearce points out (see chapter 13), the

aviation tax debate has had a chequered history, but the case for such a market-based instrument is very strong.

In setting out a 30-year framework, the government has the opportunity to adopt a more rational approach to aviation and transport resource allocation. Auctioning slots, peak pricing, and environmental taxes are part of a market-orientated policy framework, which helps to reveal the underlying demand and supply conditions. And although the consultation exercise has been accompanied by the attempt to estimate what the consequent demand for aviation would be, the case for a market-based approach is premised on the idea that such exercises are bound to fail. If planners could make such estimates as well as markets, there would be little point in using markets.

These considerations lead to an optimal strategy for government: first, fix the distortions, then decide on capacity in light of the revealed demand. Sadly, this luxury is not available—having failed to address the distortions over the last couple of decades, the government now has to make decisions on capacity. Policy is therefore second-best—focusing on how to decide on capacity, but at least having the simultaneous option of adjusting the distortions.

Recognition of the practicalities leads on to the inevitability of trying to judge how much demand would fall if prices were corrected. Would, as some claim, an appropriate environmental aviation tax reduce demand sufficiently to negate the need for some, or all, of the additional capacity?

It is well beyond the scope of this chapter to adjudicate on this question, except insofar as to provide some remarks on the environmental cost estimates and the elasticities with respect to other transport modes. On the externalities, the commitment in the Energy White Paper (DTI, 2003) to addressing the Royal Commission on Environmental Pollution target of reducing CO₂ emissions by 50% by 2050 (RCEP, 2000) would indicate that a substantial contribution is required from aviation. This is particularly relevant given that emissions in the atmosphere are much more damaging than emissions at ground level. Furthermore, as noted above, since the wider externalities are typically ignored, we can assume that the main estimates of environmental damage are *underestimates*. With regard to the substitutes, these are capacity-constrained too, and elasticities should be considered for different levels of investment in rail and road, as well as for the existing system. If this is done, the elasticity should rise (as, for example, with the completion of the Channel Tunnel Rail Link, and other high-speed links to the Midlands, the North and Scotland).

But such considerations are hypothetical: it matters whether the environmental taxes are actually imposed, and whether new rail, road and other substitute infrastructure is actually built. Suppose for a moment that it is not. In such circumstances, the unconstrained demand for air

travel is likely to grow very considerably, as a number of forecasts indicate. More people will want to take cheap holidays abroad. Business will take advantage of falling costs of international travel. Commuting patterns will respond to the location effects of cheap flights. People will own more widely dispersed second homes. With prices falling, demand will outstrip supply, and queueing and congestion will result—as has already happened on many of Britain's roads.

These demands have a political context as well as an economic one. Ministers will be loath to be responsible for raising the price of cheap foreign holidays, for fear of voters' reactions to having their new-found lifestyles priced out of their reach. The larger the distortions appear, the more entrenched this political effect becomes. Ministers in the past have ducked the airports decisions for fear of the backlash in a geographical electoral system. This time, the fear may be the other way around: not to build risks the new cheap-holiday vote.

In bringing together the strands of the debate and in responding to the consultation process, the government might be tempted to do the minimum possible. This time that probably means choosing more runways rather than a new airport, and to concentrate them around Heathrow. That may be the right answer, and it would buy time to think more about the further steps. If this is combined with a proper economic framework that starts to reduce the distortions, it may not be a bad outcome, and then a proper framework for aviation policy might begin to be created and demand respond to the true resource costs.

If this is to be the outcome then, as many of the papers in this volume indicate, much more research is needed to design appropriate economic instruments and, where appropriate, new markets. The Air Transport White Paper represents an opportunity to set out a framework within which the policy instruments can be developed. It remains to be seen whether the intention to avoid the dithering and evasions of the past is carried through successfully.

References

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