THE HODGKINSON GROUP
Aviation Advisors

AVIATION, THE ENVIRONMENT AND THE VALUE OF ANTICIPATION

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The climate impacts of aviation are well known. Against a background of significant growth in air travel and aviation markets, and as a result of increasing awareness on the part of governments and the public with regard to climate change and its possible consequences, pressure is being placed on the aviation industry, and airlines in particular, to reduce aviation carbon emissions.

The IPCC has concluded that, last decade, aviation contributed about 3.5% of the anthropogenic forcing of the climate, such percentage excluding the effect of contrail and aviation-induced cirrus. That effect, according to a report by a UK Royal Commission, may be three to four times that of the radiative forcing resulting from aircraft carbon emissions, and carbon emissions were forecast to grow significantly. It appears that radiative forcing resulting from aircraft may be twice that of land-based use of hydrocarbon fuels - that is, high altitude emissions may be disproportionately damaging to the environment.

And, as the IPCC also concludes, by 2050 up to 15% of anthropogenic forcing of climate change may be caused by aviation.

With forecasts by IATA, Boeing and Airbus that there will be almost unprecedented growth in airline traffic and aircraft numbers, and with reports that aviation emissions are growing faster than in any other industry, the climate impacts of aviation and demands for reductions in aviation carbon emissions will only increase from 2006's already high level. An MIT report to the US Congress on aviation and the environment states that

> there is a compelling and urgent need to address the environmental effects of air transportation … As a result of growth in air transportation, emissions of many pollutants from aviation activity are increasing against a background of reductions from many other sources.

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There are a number of possible actions airlines could take. Apart from continuing with business as normal the most common have been to:

- devote resources to improving air transport technology and infrastructure, and to developing more efficient operational practices (the approach adopted recently by Virgin Atlantic's Sir Richard Branson); and

- consider emissions trading schemes.

In terms of the former, while worth pursuing, any advances from research and development of new technological solutions to reduce aircraft emissions will have a long lead time. And, as the IPCC and the House of Lords' European Union Committee (in 2006) have concluded, improvements in air traffic management and operations cannot be the primary mechanism for dealing with the climate impact of aviation.

In terms of the latter, the European Commission has announced a plan to include aviation in its existing emissions trading scheme (ETS) from 2011. The US is opposed to the plan on a number of grounds, and many airlines and airline associations argue that ICAO - the UN agency - should determine how best to include aviation in any ETS (ICAO's Assembly meets to discuss the issue in September).

Inclusion of aviation in any ETS - aviation-specific or otherwise - is, then, mired in dispute and controversy.

As business generally - but not, generally, the airline business - has recognised, management of environmental risks and issues such as carbon emissions makes economic sense, as does taking a pro-active stance towards the risks and uncertainties presented by global warming and climate change. Advantages are gained by addressing likely or anticipated regulatory proposals such as emissions trading schemes, for example, before possibly being required by government to participate in such schemes.

Another payoff for taking action before being forced to do so – becoming actively engaged with government - is predictability and an input into steering the process of change. If corporations are involved in the policy development and decision-making processes, they are in a position to have early input into formulating policies that are likely to be less damaging and gain the advantage of lead time to allow adjustment to the resulting changes.

Such action as a result produces certainty, important because, as McKinsey says, "uncertainty about future regulations is the biggest risk in the carbon equation: executives need long-term assurances on credits and emission levels to factor them into plans for expensive capital investments."

Corporations have even moved ahead of governments, or have pushed governments, in order to speed up the process of regulatory change. Positive investor, shareholder and

public relations implications have accrued through such action and through being seen to take such action.

Far from moving ahead of governments, however, most international airlines are, curiously, leaving action on emissions and policy development to governments – to ICAO, a State-based organisation. Yet it seems to me that expected returns for airlines in engaging the policy process with regard to emissions are greater that either taking no action, deferring action or resisting policy initiatives. The probability of significant regulation makes it prudent for airlines to engage with government now in steering the process of regulatory change – indeed, made it prudent some time ago.

Jared Diamond asks in his book, *Collapse: How Societies Choose to Fail or Succeed*, whether business has "the courage to practice long-term thinking, and to make bold, courageous, anticipatory decisions at a time when problems have become perceptible but before they have reached crisis proportions." For aviation, on one view, that crisis is already here.