

Economics of Bristol Airport Expansion in Light of Heathrow Judicial Review

BIA's economic case, as presented in the report by Roger Tym and Partners, is heavily flawed and does not comply with the standards expected by the ODPM. It is highly selective about which costs to include, confuses local with national benefits and chooses arbitrary and inconsistent baselines. Furthermore, it totally excludes climate change costs.

The Heathrow Judicial Review¹ concluded that not only the case for Heathrow's third runway was flawed in several areas, but that these faults extended to the Air Transport White Paper as a whole, including climate change, economics and surface access. All of these areas are relevant in the Bristol case. The judge stated that the climate change implications, particularly the increased cost modelling, needed to be taken into account due to Government policy and science having moved on considerably since the White Paper was written, and that the economic case in particular could not be taken as settled in 2003.

From the Economic Impact Report² (though it does not comply with the standards for such a report) we see that BIA claims the benefits to the regions as follows:

Direct User Benefits	BIAEIR : annual £m in 2020
Existing users	0
New users – shadow cost	0
New user – travel and time cost savings	11.1
Benefits to BIA	2.6
Losses to other airports	0
Benefits to Govt - APD	17
Total	30.7

This is faulty. The APD benefit does not accrue regionally but is paid into the national Treasury, and although it is a gain to the Government it is a matching loss to the passengers. This means that seen regionally, this term should at best be set to zero and at worst is actually a loss of £17m per annum. The benefits to “new users” ie those who would otherwise not have travelled or have had to travel through more distant airports is also dubious. The DfT uses this analysis primarily for business travellers where the time savings have a direct economic impact, although even then it is somewhat theoretical. But as the majority (75% of the extra passengers) will be outbound UK tourists it is highly unclear why there is an economic benefit in reducing their travelling time and hence encouraging this level of outflow.

The table also totally ignores climate change and any costs imposed to reflect the impact of flying. BIA assume that this is covered by the inclusion of aviation in the ETS, yet there are several problems with this. Firstly, DfT include the carbon costs in their modelling for

1 Judgement available at <http://www.bailii.org/ew/cases/EWHC/Admin/2010/626.html>

2 Roger Tym and Partners, as given in Appendix A of volume 6 “Community” of the Environmental Statement

Heathrow, this is one area that the Judicial review stated needed to be re-evaluated in light of the Climate Change Act and greater understanding of climate change. Secondly, BIA do not assess the impacts on demand of this inclusion in the ETS, yet are all too ready to criticise rises in APD. Thirdly, the proposed inclusion in the ETS is unlikely to reflect to any great extent the costs of carbon mentioned in the Heathrow judgement – even the EU commission have stated that it is unlikely to have much impact on ticket prices and the ETS needs other policy instruments (such as a carbon tax) in order to reduce emissions levels.

Using the range for “traded” carbon prices at 2020, we have between £14 and £31 per tonne of CO₂. The untraded prices vary between £30 and £90 per tonne. As much of the emissions of the aviation sector are not to be covered by the ETS (ie only the growth above 2005 levels is to count at all) it would seem that the price for aviation may be higher than the “traded” level. The Climate Change Commission report³ implied that the overall growth in movements and passengers needed to be well below that envisaged by the ATWP, ie at most 370 m passengers per annum for the UK by 2050 compared with 570 m that the White Paper implies. The CCC report stated that a carbon price of £300/tCO₂ at 2050 would only reduce demand to 455 m.

This implies that to achieve the Government's targets for overall emissions cuts and the specific aviation target for 2050 being below 2005 levels, would require a carbon price in 2050 of around £500/tCO₂, or 2.5 times the central traded level used by DECC for the economy as a whole. This in turn implies that the carbon cost for aviation in 2020 should be around 2.5 times the central value, or £62.5/t CO₂.

The CCC further state that the climate change impacts of aviation are more than those attributable to CO₂ alone and hence they are performing further work which may mean that they need to further reduce the amount by which aviation can expand. The experts in this area state that overall aviation emissions have roughly twice the impact of the CO₂ alone. Again this would imply a doubling of the cost of aviation emissions.

The emissions growth due to BIA's expansion is stated to be 526,800 tonnes CO₂ per annum, of which 481,000 tonnes is from flights. Below we give a table of the possible carbon costs this implies:

	Price per tonne CO ₂	BIA carbon cost pa (10mpax)
DECC central traded value 2020	£25.00	£13m
CCC projected price excluding other gases 2020	£62.50	£33m
CCC projected priced all gases 2020	£125.00	£66m
DECC central traded value 2050	£200.00	£105m
CCC projected price excluding other gases 2050	£500.00	£263m
CCC projected priced all gases 2050	£1,000.00	£526m

Unless the airport is to cease emitting greenhouse gases in 2020, the rapidly increasing carbon costs after that point are relevant to the costs implied by the current expansion proposals.

³ Available at <http://www.theccc.org.uk/reports/aviation-report>

If we summarise the benefits to the South West again including these adjustments:

Direct User Benefits	annual £m in 2020
Existing users	0
New users – shadow cost	0
New user – travel and time cost savings excluding outbound tourists	2.77
Benefits to BIA	2.6
Losses to other airports	0
Benefits to Govt – APD – is a loss to pax and accrues nationally	0
Total	5.37

The “benefit” here is well below the lowest estimate for the climate change costs, although those costs do not accrue to the South West. If the costs were embodied by the ETS, carbon taxation or other measures, it is clear that the total here would be considerably negative.

BIA states other benefits such as job creation, but again around three quarters of that is indirect employment due to inbound tourism – yet their analysis ignores the loss of jobs due to an increased outflow of UK tourism spending. As it is clear that the growth would be “new users” it is implied that much of this would be passengers who would otherwise not have flown, and hence whose disposable income would have been spent within the UK.

The overall employment benefits stated by BIA are totally flawed by this imbalance in treatment of inbound and outbound tourism revenues. It is clear that if the two flows were treated equally that the net benefits due to tourism would also be negative, to the tune of hundreds of millions of pounds per year.

With the loss of the New York scheduled daily route, and of Lufthansa, it is clear that BIA is not successful at sustaining business oriented flights. Continental stated that the New York route was not viable, and this is because it was not attracting enough high paying business passengers to compensate for the lower paying tourists, in addition to the falling numbers of both. Lufthansa followed British Airways in withdrawing a route to Frankfurt, despite this being a route that business people cite as being key and also being one of the routes most used by South West passengers using Heathrow. There is just not enough demand to fly to this non-tourist destination to sustain a frequent flight schedule, and without such a frequent schedule it will be of no interest to business users.

On Baselines

BIA chooses baselines arbitrarily to make the benefits look big and the costs look small.

Baseline	Year	Passengers
“no development”	2016 and elsewhere 2019	7.3m
2007 level	2007	6.3m
“2007 baseline”	2007	6.0m

[the actual passenger levels for 2007 were 5.88m, 2008 were 6.23m, and 2009 5.62m]

All of these numbers appear in just the Community volume main text. The Tym report that appears as an appendix to that volume then has a chapter “Socio-economic baseline : the current situation” making it clear that they interpret baseline to mean whatever conditions currently exist, not some hypothetical future situation. It then gets further confused by stating:

we show the difference in benefits between the new updated scenario with new BIA passenger numbers when BIA capacity is increased to 10mppa and a baseline scenario that uses DfT scenario, in which all expansion proposals are implemented however BIA's capacity is capped at the current 7.3mppa

This is highly confused – the current level is not 7.3m, nor has BIA produced any passenger flow simulations to show that it is possible to achieve this level with the current facilities. By using the 7.3m number as a baseline they are able to state that the impacts, particularly in road traffic, are small because they relative to only an extra 2.7m passengers using the roads rather than an extra 3.7m relative to 2008's peak, or 4.4m relative to 2009's total.

But when calculating benefits, Tym uses a “base case” that is the passenger levels for 2008 and thus such terms as the amount of APD generated by the expansion are proportional to an extra 3.7m passengers.

BIA choose to look further back for their baseline case for night noise, citing a level last seen in 2004 to justify a level of 4000 night flights per year. But this is before the charter operators lost much of their business to the no-frills scheduled carriers.

The inconsistent use of baselines is a sleight of hand and directly contravenes the ODPM guidelines for economic impact reports. BIA have never produced any evidence that the existing terminal, parking etc is capable of handling 7.3m passengers, and has stated that the western walkway adds no passenger capacity in its bid for permitted development of that facility. BIA says that it urgently needs to expand to handle anticipated passengers yet is handling levels 24% below their stated “no development” capacity; from this it is clear that the use of the 7.3m baseline number is unjustified.

All economic, traffic, emissions, noise and other assessments should use a single consistent baseline and that should be the conditions seen in 2008, before the recession reduced demand.

Conclusion

The economic case for the expansion of Bristol Airport was always weak and its presentation highly unconvincing. The consequences of the Heathrow Judicial Review are such that it is clear there is no overall economic benefit. The expansion application should be refused.