Annex: Comments on Frontier and RBB reports

The CAA has received two reports, one commissioned by Ryanair from RBB Economics (RBB) and another from easyJet from Frontier Economics (Frontier). These reports, in the main, assess the extent to which switching away from a South East airport will constrain an airport's behaviour, with each concluding that the constraints imposed on airports would be insufficient to prevent an airport from profitably raising its prices. Both reports cite their findings as indicative that Gatwick and / or Stansted have substantial market power.

In this paper we provide a number of observations on the economic issues contained in the reports. In doing so we do not repeat the analysis in our November submission on competition in the South East market.

Consistency with previous regulatory findings
Frontier says that Gatwick would not lose sufficient volumes to discipline Gatwick's pricing. The CC in its BAA Airports Market Investigation, both in the South East and in Scotland, looked at the impact of hypothetical price increases on passenger switching. As part of its recommendation for the break up of the South East and Scottish BAA airports, the CC concluded that the underlying South East (and Scottish) market was competitive, taking into account all relevant competitive constraints. The CAA also looked at the impact of hypothetical price increase on passenger switching in its recommendation to de-designate Stansted and came to the same view.

Moreover, the regulators have previously taken the view that looking at passenger switching alone will not take account of all of the competitive constraints that apply to airports.

The CAA recommended de-designation of Stansted even though it concluded that passenger switching at Stansted would not be sufficiently large, on its own, to make an increase in airport charges unprofitable. The CAA stated (in the context of the Stansted regulatory review) that it agreed…

> "*with the calculations set out by Frontier but notes that this is consistent with the CAA's conclusion that "passenger responsiveness, on its own, would be insufficient to act as a sufficient constraint on airport pricing" and that the competitive constraints on Stansted arise due to the combination of passenger and airline conduct. The conclusions drawn by Frontier and by the CAA in its Advice are, therefore, very similar."*

We also note that the CAA recommended de-designation of Manchester even though the critical loss analysis there also pointed to a conclusion that passenger switching alone would not be sufficient to make an airport charge increase unprofitable (though the CAA did not directly address this).

- The CAA concluded that Manchester would need to lose 3.0%-4.5% of its volumes in order to make a 5% increase in airport charges unprofitable, or that Manchester would need to

lose 0.6m-0.9m in response to a £0.33p increase in airport charges increase in airport charges.[1]

- However, the prevailing evidence at the time was that Manchester would lose only 0.066m passengers if it were to raise airport charges by this amount.[2]

It is also the case that BAA argued during the CC's Airports Market Investigation that break-up of Scottish airports would not result in lower airport charges on grounds that passenger switching was low enough that each airport would have incentives to increase airport charges. The CC rejected this argument, in part on grounds that airline bargaining power meant that pricing constraints were greater than implied by passenger sensitivity alone. The CC stated that:

> *"… [evidence on passenger price sensitivity] may not provide reliable evidence on the factors constraining airports from increasing prices … [in part because] … airlines may have bargaining power…., implying a greater ability to resist price increases than implied just from passenger' price sensitivity …"*[3]

In its Decision, the CC comments on passenger survey evidence for the Scottish airports stating that:

> *"passengers at all three airports are insensitive to increases in airfares, but [does not] deduce from this that the airlines are highly insensitive to changes in airport charges" (para 79), one reason being that "… airlines may be able to launch new routes from other airports and/or may have bargaining power, implying a greater ability to resist price increases than implied just from passengers' price sensitivity" (para 78).*

Passenger switching

Reasons for why passenger sensitivity alone fails to capture all of the constraints that apply to an airport can include:

- Some airline services may switch in their entirety to a rival London airport. The airport charge increase at Gatwick, and the response of marginal passengers to it, may be enough to "tip the balance" of profitability of operating at Gatwick compared to a rival;

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[1] *Manchester Airport price control review - policy consultation*, CAA, Jan 2007. Appendix 2, paras 9-10 initially indicated that a 3.0%-4.0% loss of volumes would be needed to make a 5% airport charge increase at Manchester unprofitable; subsequently the CAA performed sensitivity analysis suggesting that the critical loss might be higher at 4.5% (CAA (July 2007) *De-designation of Manchester and Stansted airports The CAA's advice to the Secretary of State* Table 5-1). The CAA assumed Manchester's starting airport charges were £6.50/passenger, hence a 5% increase equalled 33p.

[2] The CAA's survey evidence from 2006, which the CAA utilised in its critical loss appraisal for Stansted, indicated that Manchester would lose 5% of its passengers, or around 1m, if their airfares increased by £5 (CAA (July 2007) *De-designation of Manchester and Stansted airports The CAA's advice to the Secretary of State,* para 5.70). Scaling down, the implication is that a £0.33 increase in airport charges would have prompted only 0.066m passengers to switch.

[3] *BAA Market Investigation - Emerging Thinking*, CC, April 2008, para. 138.

- Some airline services at Gatwick will simply become unprofitable and be withdrawn in their entirety;
- Some airlines will relocate aircraft capacity currently allocated to Gatwick to routes at other airports in Europe; and
- Some airlines will exert buyer power, acting strategically to discipline Gatwick's pricing.

Frontier's response to these points is that while some airline services may react in the manner described above, those airline services that do not switch will continue to supply Gatwick with the same volume of passengers despite the airport charge increase, and overall there is no reason to suppose that the response to the airport charge increase will be any larger than implied by passenger switching. Frontier also argue that due to the presence of excess demand at Gatwick, services that leave Gatwick will be backfilled by other services. However, this presumes that there will be excess demand at the competitive price level, which is unlikely to be the case. We expand on these issues further below.

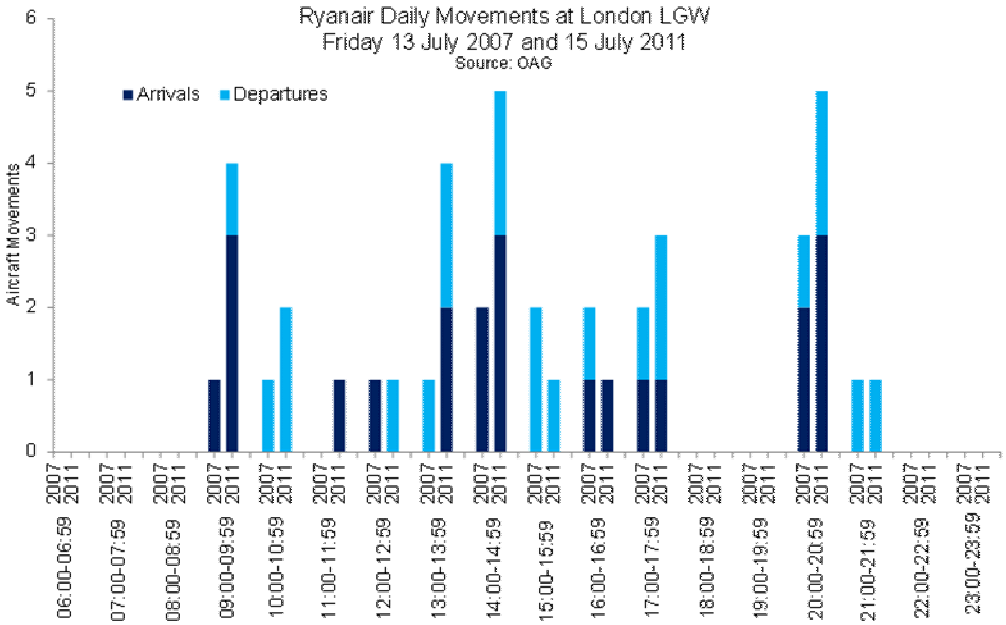
Airline switching

RBB focuses on the ability of airlines to switch capacity to other airports (i.e. airline switching). However, this is only one element of potential competitive pressures on an airport. For example, a more comprehensive analysis would also focus on the ability of passengers to seek alternatives and the competitive constraints that would entail. For example, passenger switching does not require the same bulk transfer between airports as airline switching, and so there is reduced focus on peak-period capacity limitations at competing airports. In particular, passenger switching does not necessarily require the replication of an airline's base at another airport. Individual passengers (especially leisure passengers) are less concerned with timing and frequency of alternative flights, and are generally willing to consider a wider range of airports (potentially involving longer ground journeys). As a result, any lack of substantial capacity to base new aircraft at an alternative airport is less of a constraint to passenger switching than it might be for airline switching.

RBB's analysis of airline-switching appears to make a tacit assumption that airline switching would necessarily involve the replication of (some or all of) an airline's current pattern of operation at another airport, focusing in particular on the ability to base aircraft elsewhere. This is likely to result in an underestimate of the potential for airline switching. It may well be the case that Gatwick (for example) has limited ability to accept new based aircraft, due to runway capacity issues for the first wave of departing flights. However, there is greater scope, after this first wave, allowing non-based aircraft to operate into Gatwick. From a passenger perspective, the revised timing is likely to have a limited negative effect, especially where traffic is leisure focussed. Indeed, timings may be more attractive than the current 6am departure bank which is driven by aircraft utilization, not necessarily passenger demand for that early a departure.

Analysis of the change in Ryanair services at Gatwick between 2007 and 2011 demonstrates these points. Ryanair does not have any based aircraft at Gatwick, but has increased its services markedly during this period, operating its first services between 9 and 11 am. This is shown in Figure 1 below.

Figure 1: Ryanair daily movements at Gatwick 2007 and 2011



It is also the case that even though an alternative airport may not have any runway slots available, it will nevertheless likely have significant amounts of spare capacity for passengers at any one time due to airlines operating aircraft at less than full capacity, and in the slightly longer term from airlines responding to increased demand through increasing aircraft size. Moreover, passengers have a wide range of ground origin options available to them; airports outside the South East can be regarded as potentially offering acceptable substitutes for a proportion of an airport's current passenger base.

Competitive price level

As we identified in our November submission, and in line with the CAA's (and other competition authorities') guidelines, analysis of competition in a market needs to be undertaken at the competitive price level. While this is in principle accepted by both Frontier and RBB, both in practice undertake analysis at existing capped price levels or even, in the case of RBB, from previously discounted figures.

Excess demand

Frontier argues that there is excess demand at Gatwick, hence Gatwick will be insulated from the effects of raising airport charges, since loss of services will simply be replaced by the "queue" of services waiting to access the airport when slots become available. However, as we set out in our November submission (page 87), the presence of excess demand implies that the current regulated price is below the level that would be expected in a competitive market. The presence of

excess demand does not mean Gatwick has substantial market power. This demonstrates the importance of the CAA conducting its competition analysis from an appropriate price benchmark.[4]

Capacity in the South East and the importance of peak capacity

In our November submission (pages 50 to 55), we set out our view that there was significant additional capacity in the South East (even when compared to a few years ago) and potential for significant additional capacity to be realised going forward (even absent additional new runways in the South East). On this point we note that the two reports have a different view of capacity in the South East. Frontier's analysis on capacity largely corresponds to the analysis in our November submission, drawing out the sharp distinction between the position now and that which pertained the last time these issues were considered (in the context of the de-designation of Stansted and the CC's Airports Market Investigation).[5]

While Frontier's analysis of capacity largely corresponds with our view, Frontier argues that runway capacity constraints at Heathrow preclude switching from Gatwick to Heathrow. However, this is not the case:

- It is not correct that Heathrow has a capacity constraint in respect of accommodating more passengers. Switching passengers could be accommodated through higher load factors, larger aircraft, or route reorganisation at Heathrow;
- Heathrow's large size makes it easier for Gatwick's passengers to be accommodated. For example, switching of 0.4m[6] Gatwick passengers is only a 0.6% gain for Heathrow;
- Gatwick point-to-point passengers might displace transfer passengers at Heathrow;
- Airlines can switch services to Heathrow despite the presence of runway constraints; while this may displace services at Heathrow which will create demand at Gatwick, these replacement services may be far less attractive for Gatwick (e.g. if Gatwick loses long haul services to Heathrow).

RBB argues in respect of Stansted that the presence of spare capacity overall is far less relevant than the tightness of capacity in the peak. The importance of the availability of alternative peak capacity is argued to be due to the impact that a relative lack of peak capacity has on airlines' ability to switch based aircraft. We would make a number of observations about this which the CAA should consider.

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[4] We also note the contradiction in Frontier's report. Frontier agree that capacity constraints do not imply market power, but argue that excess demand at Gatwick does give Gatwick market power.

[5] The Frontier analysis is we understand, based on the recent DfT forecasts. That forecasts Gatwick's movements at 260,000. Our recent Masterplan shows that it would be possible to accommodate around 290,000 movements. In addition, the CAA is aware of our aspirations to create a limited number of extra peak movements, as well as seeking to further incentivise the better use of our existing slots.

[6] 0.4m passengers is the number of passengers identified by Frontier as switching to Heathrow in response to a 10% price increase at Gatwick.

- The fact that peak capacity is fully used does not mean that airlines cannot obtain access to that capacity by paying the economic costs of using that capacity. While peak capacity is undeniably scarcer than off-peak capacity, that simply reflects its economic value to the airlines and suggests that at a price[7] an airline wishing to switch capacity is likely to be able to acquire at least some peak slots from elsewhere.[8] In this respect, peak slots differ little from similarly scarce 'property' elsewhere in the economy where the value that may be attached to it is not regarded as a barrier to competition. The fact is that both Ryanair and easyJet have been successful at acquiring peak slots at Stansted and Gatwick, despite the physical constraints identified. It is not necessary for a peak slot to be unused for competition to be possible.

- Indeed, current restrictions on airport charging arising from the presence of economic regulation may mean that some existing peak slots are under-used compared to a more efficient operator. To the extent that this is true, then airlines which are more efficient users of slots, which may include Ryanair, may be better able to access peak slots at Gatwick in a de-regulated environment.

- More generally, current patterns of airport operations and the relative attractiveness of using different airports reflect the presence of binding price cap regulation at the three larger London airports. De-regulation would likely promote changes in pricing structures and the nature of commercial offers made by airports, such that the options available to particular airlines, including such as Ryanair may change. This underlines the importance of conducting the market power assessment from a “competitive price level” or, rather, price levels where sharply different prices might apply to differently timed slots dependent upon the interaction of supply and demand.[9] Thus, the analysis needs to reflect the level and structure of prices in a competitive market, not charging structures distorted by regulation.

In a competitive market with excess demand in certain peak periods, it would likely be the case that higher prices – both absolutely and relative to off-peak – would emerge during those peak periods in order to seek to better equate demand and supply. This can be demonstrated in a number of industries, including in the travel industry more generally, where for example package holidays are significantly more expensive during school holiday periods. The implication of this is that patterns of behaviour conditioned by the current level and structure of prices cannot be assumed to apply in the competitive price level counterfactual.

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[7] For example through trading or corporate activity.
[8] This can be demonstrated by the price at which slots have been traded at Heathrow as well as the price at which airlines have purchased incumbent airlines with associated slot rights, for example easyJet’s purchase of GB Airways in 2007.
[9] It is important to recognise that a competitive price level is itself a significant simplification and that it will represent an amalgam of prices derived from a charging structure that will not be constrained by the current level of price caps. That has particular implications (see above) for the conclusions that might be drawn from the apparent scarcity of peak slots. In particular, it would not be unreasonable to expect that aeronautical prices in peak periods would be significantly above current charges in the absence of binding price caps.

Availability of off-peak capacity
The Frontier report assumes too many inbuilt constraints (e.g. on the pattern of operation) and fails to take into account capacity availability at smaller airports (e.g. Southend). Even if there is limited scope to shift based aircraft around the South East airports, this does not preclude, for example, the use of inbound aircraft during the quieter periods outside the morning and evening peaks. You could envisage airports competing strongly for such off-peak traffic, especially under separate ownership.[10] As should be generally recognised, what is important for the competition analysis is marginal switching and thus such switching by airlines, although potentially limited, can contribute to the cumulative impact of competitive constraints present, rather than necessarily of itself being determinative.

Airline responses to airport charge movements
Frontier's analysis of responses to airport charge movements in the South East does not demonstrate a low responsiveness of volumes to airport charge movements. As recognised by Frontier and the CAA, airport volumes are affected by many factors other than airport charges and attempting to isolate the impact of airport charges is very difficult.

In our view, the simple charts prepared by Frontier which show price increases at the regulated airports and compares this to movements in volumes[11] are not a valid basis for drawing reliable conclusions on the impact of airport charges on volumes. For example, the airport charge increase at Gatwick occurred in circumstances of excess demand, such that a low reaction is to be expected. As noted previously, this merely shows that Gatwick's pricing is below competitive levels, not that Gatwick has market power. In addition, Frontier fails to note that substantial parts of some the charge increases at Heathrow and Gatwick are simply a reclassification of charges (e.g. airport air navigation services (ANS), baggage infrastructure and fuel storage infrastructure charges were moved into the price cap) and did not represent an increase in the net charge to airlines overall. In addition, the airport charge increase at Stansted followed the unwinding of long-term discount agreements with major airlines, which will have been anticipated by those airlines. Frontier itself dismisses the argument proposed by RBB of basing analysis upon the unwinding of discounts at Stansted, with Frontier stating that airlines would have expected price increases to follow and factored this expectation into their decisions. Moreover, those increases were large in percentage terms because they started from very low levels

Airport cost and revenue structures and the impact of switching
In conducting its analysis of switching, we would expect the CAA to fully take into account its previously established view that the impact of passenger and airline switching is magnified by the presence of two income streams (aeronautical and non-aeronautical) against a relatively fixed cost base on both the capital and operating sides of the business. This magnifies the impact on

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[10] We also note that RBB refer to the CC's views on competitive constraints on Stansted from other London airports, as expressed during the Q5 process. A more thorough analysis would include the views of others, including those of the CAA (and especially the CAA's views during its consideration of Stansted's designated status, where it concluded that Stansted should no longer be subject to price caps).
[11] Figures 9, 10 and 11 of the Frontier report.

profitability. Clearly, the degree of switching required to constrain airport pricing will depend upon the sensitivity of passengers and airlines to changes in airport charges. We consider that there are at least two reasons why that sensitivity will be greater than implied by the Frontier analysis.

- The picture is likely to be somewhat more dynamic than painted by Frontier. In particular, there is likely to be some interaction between passenger switching and airline profitability. As discussed in response to a question from the CAA in the stakeholder workshop on 7 December, it does not require the whole of an aircraft's passenger load to switch before that service is rendered uneconomic. For the most marginal services, switching by relatively few price-sensitive passengers who cannot be replaced at the same yield may so impact profitability as to call into question the viability of the service and so bring forward the prospect of airline switching. In short, the relative fixity (in the short term) of the airline's unit of production leverages up the potential impact of marginal passenger switching.

- Second, the potentially higher prices entailed in an analysis embodying a competitive price level (or levels, see above) may interact in a number of ways to sharpen the sensitivity to airport charge increases. First, airport charges would constitute a larger proportion of the overall costs to airlines and passengers. Second, any increase is therefore likely to have a more marked impact on route profitability, particularly as more routes are likely to be 'marginal'. Therefore, it is imperative that the CAA focuses on impacts ‘at the margin’ from any airport price rise, rather than conducting its analysis on the basis of averages.

Buyer power

In order to demonstrate buyer power it is not necessary to show that an airline could realistically shift the entirety (or even a substantial part) of its operation to another airport. Rather, it is necessary to show that the totality of constraints imposed on airports (including by an airline or combination of airlines shifting sufficient capacity) would prevent an airport from profitably raising its prices. Conventionally this analysis is based on an assumed 10% increase in prices. The Frontier report estimates that for such a price increase to be unprofitable for the airport, Stansted would have to lose between 1.1m and 1.3m passengers. The equivalent range for Gatwick is estimated to be 1.8m to 2.3m passengers.

The Frontier report shows that the average easyJet based aircraft generates around 350,000 annual passengers. The RBB report shows that the equivalent figure for Ryanair is 400,000. Using these figures, Stansted would need to lose only 3 or 4 based aircraft for the price increase to be unprofitable for the airport. At Gatwick the figure is only 5 to 7 (using the 350,000 figure above[12]).

The question then is: could an airline (or a combination of airlines or passengers switching to alternative airports) realistically threaten to shift such a number of based aircraft? The answer is clearly yes, based on the actual observed behaviour of airlines in recent years. For example Ryanair have reduced the number of based aircraft at Stansted materially in recent years. Similarly easyJet, has recently demonstrated this in their decision to shift three aircraft to

[12] Frontier state that the number is 7 or 8 aircraft, though that seems inconsistent with the 350,000 figure cited.

Southend. A further shift of the magnitude indicated above could realistically be accommodated within the South East system, even before considering the ability of airlines to deploy capacity to other markets.[13]

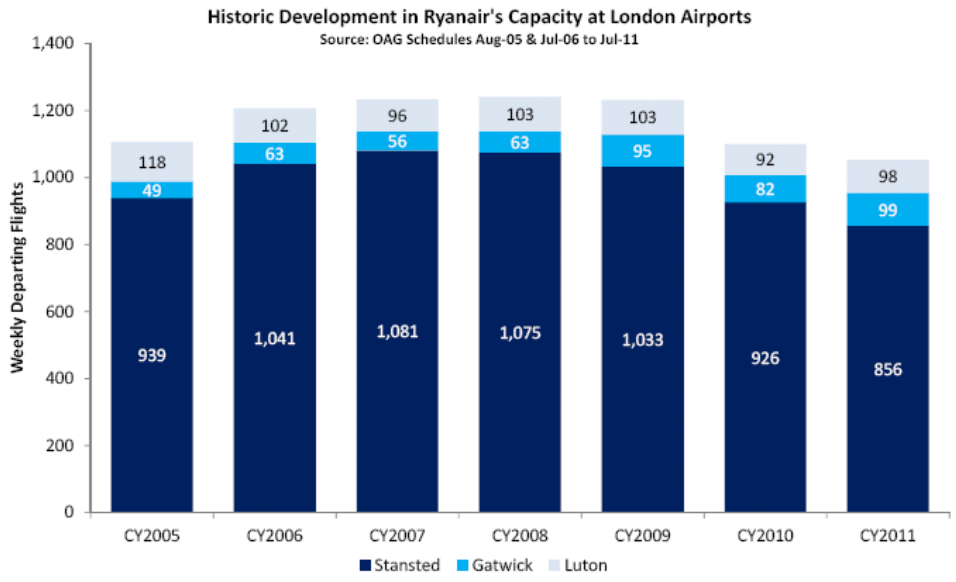
Strategic exertion of buyer power

Neither the Frontier nor RBB reports discuss the potential for airlines to act strategically in order to exert additional constraints on an airport. Constraints emanating from such strategic behaviour would be in addition to constraints generated by passengers and airlines switching in response to relative price rises. Airlines clearly can act in such a way and the withdrawal of (or threat to withdraw) services from airports has been used as a commercial bargaining tactic by airlines in the past.

Airline switching in the South East

As set out in Gatwick's November submission (e.g. pages 43 to 46) there is ample evidence of airline switching in the South East market in period between 2007 and 2010. Analysis of Ryanair capacity in the South East illustrates that it too has switched capacity between London Airports – with reductions in capacity in Luton as well as Stansted, off-set in part by growth at Gatwick. This can be seen in Figure 2 below.

Figure 2 – Historic developments in Ryanair's capacity at London's airports



[13] Whether the airlines would find it profitable to make such further shifts in capacity is another matter, requiring more complex analysis. Again, however, we have to assume that both Ryanair's and easyJet's actions in recent years reflect their view that capacity can be profitably redeployed.

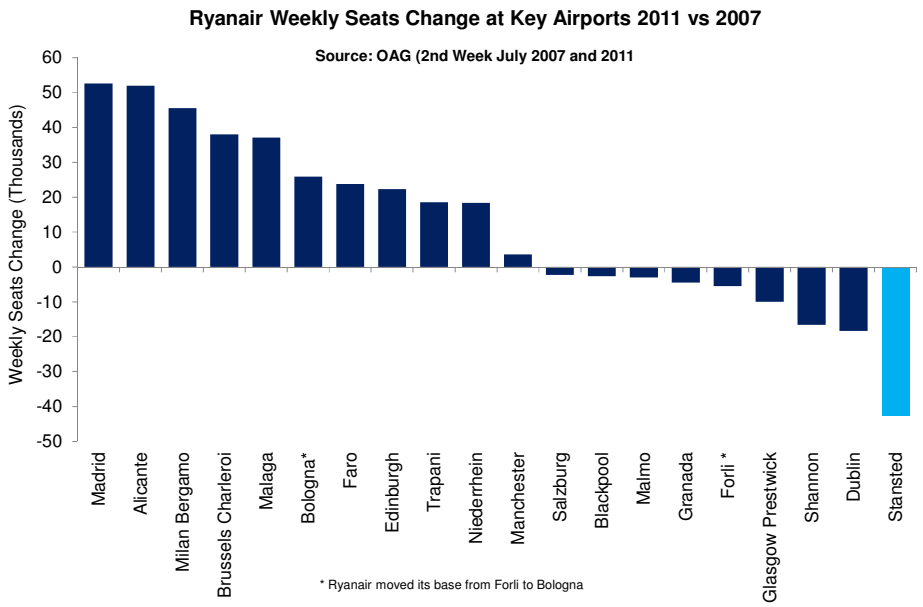
Switching opportunities outside the South East

Gatwick's November submission (pages 82 to 83) provides comment on the opportunities for some airlines, especially low cost carriers, to switch (or threaten to switch) aircraft capacity to airports serving different passenger markets. We provide some further observations here.

While RBB's analysis dismisses to a greater or lesser extent 'outside options', it largely does so from the current level and structure of airport charges. As noted above, different behaviours and commercial prospects are likely to obtain in a competitive price level world. In particular, if the level and structure of prices properly reflected supply and demand, an analysis of switching options by an airline could be expected to yield different results as it might significantly improve the relative profitability of outside options.

However, even on its own terms, RBB's analysis of the prospects for Ryanair switching to other European routes seems at odds with Ryanair's own descriptions of its business model. These frequently emphasise the airline's flexibility and readiness to switch, not least in response to airport charges. Figure 3 below shows Ryanair's ability to switch capacity between different countries and airports, with the growth or decline in weekly seats for sale for a peak week in July 2007 v July 2011 set out. The graph illustrates the traffic gains at airports in Spain and Italy, compared to lost traffic at Stansted.

Figure 3 – Ryanair weekly east change at key airports 2011 vs 2007key



Airline switching costs
Frontier argues that airline switching costs are a material obstacle to switching between airports. However, as we argued in our November submission (pages 43 to 49) the available evidence on airline switching and associated switching costs does not support such a conclusion. Indeed, Gatwick's view is also supported by the CC the CAA and the DfT, which have all taken the view that the underlying market in the South East was competitive, despite recognising the presence of some switching costs.

In terms of Frontier's analysis we note there is a lack of transparency around the estimates of costs and the underlying information that they are based on. Without access to the information we are unable to comment fully on the analysis. Nevertheless we query whether:

- The data used by Frontier captures the marginal costs of switching services. This is relevant because airlines can have a high degree of ongoing churn of services, which means that switching/remarketing of routes and aircrafts will be occurring whether or not Gatwick raises its airport charges. It may be that the costs of switching an additional service are relatively low (for example, if an airline knows it is going to launch two new routes at e.g. Luton in 2012, the marketing costs associated with launching a third new route may be much lower than the costs of marketing just one new route).

- Frontier has assumed an appropriate timescale for the switching decision. It may be that the costs associated with "sudden" switching are substantially higher than the costs associated with switching that is anticipated well in advance. For example, crew switching costs might be much reduced if an airline can anticipate future reductions in staff at Gatwick and increases at e.g. Stansted and incorporate this into natural employee churn (not replacing employees who leave at Gatwick).

If the CAA is minded to take the view that switching costs are now a material impediment to competition it will need to explain why this position has changed significantly in the period between now and when the CC examined this issue previously in the context of its consideration of whether to break up BAA. At that time the CC concluded that airline switching costs were not a material impediment to competition.

Potential alternative airports in the South East
RBB asserts that airports such as Southend cannot be regarded as alternatives because they are not operationally suitable. However, these limitations cannot be regarded as an absolute barrier to airline switching as other airlines, notably easyJet, are prepared to accept the operational limitations of Southend, for example. As such, constraints exerted by the potential for airlines and passengers to switch to airports such as Southend need to be fully taken into account by the CAA in its analysis of competition.