

STRICTLY CONFIDENTIAL

ASSESSMENT OF CAA'S APPROACH TO STANSTED'S MARKET DEFINITION

Report prepared for M.A.G

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COMPETITION
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SUMMARY OF MAIN POINTS

Our analysis has identified a number of weaknesses in the CAA's approach to, and conclusions on, market definition. We summarise them below.

Framework and approach

- The failure to take account of the multi-sided market of airports and to adopt instead a restrictive view of the market as airports serving passenger airlines and cargo airlines separately.
- Failure to distinguish *ex post* from *ex ante* market definition, and to take a forward looking approach.
- Failure to define markets under competitive conditions. In particular, an unwillingness to qualify its findings by considering that Stansted's current position/services may have been priced below competitive levels and that the common ownership of Stansted, Gatwick and Heathrow muted competition between the three airports.
- The definition of markets primarily based on what Stansted does.
- The overreliance on, and lack of critical assessment of, airline submissions.
- Failure to provide a SSNIP assessment of the cargo market.
- Failure to distinguish functional markets for airlines and passengers, and for air cargo supply chain.

Passenger product market

- Treatment of passenger airlines as a separate market, ignoring interaction with commercial activities and cost complementarity with air cargo and retail operations.
- Defining the product market as short-haul LCC and charter flights on the grounds that these are the airlines currently served by Stansted, rather than on the basis of the proper application of the SSNIP test.

- The further narrowing of the product market by excluding scheduled short-haul services which are clearly competitive with LCC services.
- Failure to recognise that Stansted's long-haul capability expands the product market.
- No assessment of demand from airlines for aeronautical services.

Geographic passenger market

- The uncertainty over the inclusion of Gatwick on the basis of an alleged "north and south London divide" from the passengers' perspective which is not supported by the evidence.
- Failure to identify the different features of airlines' and passengers' switching, and the consequences of this on market definition.
- Failure to focus on marginal passengers/airline services.
- Dismissive approach to evidence of past airline switching.
- Critical loss analysis is sensitive to assumptions. Our further analysis reveals a wide range of circumstances where Stansted cannot profitably raise its price.
- Furthermore, the CAA's critical loss analysis does not support its own geographic market definition; if taken at face value, it would imply that Stansted alone constitutes the relevant geographic market which is inconsistent with the CAA's view that it is wider.
- No verifiable airline yield analysis which supports the CAA's analysis of airline substitutability.
- European market dismissed by reference to the importance of London to LCCs, and an unsupported assertion that SSNIP would not make switching away from London profitable.

Air Cargo Markets

- No analysis of product and geographic markets.

- Failure to define a product market – the CAA simply assumes that the product market is defined by what cargo is currently served by Stansted. No analysis of substitution between air cargo and other modes of cargo transport; or between bellyhold and dedicated air cargo services.
- Erroneously defines geographic market based on submissions of cargo airlines using Stansted who claim access is essential. This is based largely on irrelevant consideration of barriers to entry, and the contentious concept of “strategic constraints”.
- No basis for rejecting European wide market in line with European Commission approach.

Conclusions

- The CAA has failed to define markets based on adequate analysis and proven evidence.
- Therefore its conclusion that Stansted has SMP is highly suspect and easily challenged.
- In order to remedy these defects, the CAA must undertake a considerably more critical assessment of the economic and factual evidence within a framework which correctly deals with the multi-sided nature of airports and the commercial and economic realities of passenger and LCC behaviour.

I. INTRODUCTION

This report has been commissioned by Manchester Airports Group (M.A.G) to provide an independent assessment of the Civil Aviation Authority's (CAA) market definitions in *Stansted Market Power Assessment: Developing our 'minded to' position*, January 2013 (hereinafter "SMPA").

The SMPA sets out the CAA's "'minded to' position" – "its provisional views" – on whether Stansted has market power under the *Civil Aviation Act 2012*.

The Act requires the CAA, when imposing *ex ante* regulatory obligations on an airport, to satisfy a three part test: Test A - substantial market power; Test B - insufficiency of competition law; and Test C - net benefits from regulatory intervention.¹

As part of Test A, the CAA is required to define the market(s) wherein an airport operates. Or, more specifically, to identify the competitive constraints operating on the airport market or markets.

The CAA has provisionally defined two relevant markets:

¹ The "market power test" under the *Civil Aviation Act 2012* (s. 6). This approach is similar to EU communications regulation which adopts a competition law approach. This uses a "three criteria test" (high durable barriers to entry, lack of dynamic competition, insufficiency of competition law remedies) and Significant Market Power (SMP) to trigger *ex ante* controls. *Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services* (2007/879/EC). Also Commission Staff Working Document, *Explanatory Note Accompanying document to the Commission Recommendation on Relevant Product and Service Markets*, C(2007) 5406 (2nd edn., 2007).

1. Core aeronautical services for short-haul LCC and charter airlines covering a geographic market that includes at least Stansted, Luton, Southend and possibly Gatwick (“the Stansted short-haul market”).
2. Core cargo aeronautical services provided to cargo-only airlines at Stansted (“the Stansted cargo market”).

These definitions differ from the market definition found in the CAA’s Initial Views² (“Initial Views”), and those of the UK competition authorities which have defined wider geographic and product markets.

In the SMPA, the CAA is soliciting views on its analysis, and the weight it should give to the evidence it has so far collected supporting its provisional positions.

This report is an independent assessment which reflects the views of its authors only. It is organised in three main parts:

- Overview of previous competition and regulatory authorities’ findings regarding airport market definitions (Section II).
- Critical assessment of the CAA’s analysis of the relevant product and geographical markets for passenger airport services (Section III).
- Critical assessment of the CAA’s analysis of the airport services markets to the air cargo sector (Section IV).

² Civil Aviation Authority, *Stansted – Market Power Assessment: Non-confidential version – The CAA’s Initial Views* - February 2012.

II. PREVIOUS AIRPORT MARKET DEFINITIONS

In recent years, UK competition authorities, the CAA and the European Commission have investigated airports in the UK. Here we briefly review the past positions taken in the:

- The Competition Commission's report following its BAA airports market investigation (2009)³ ("CC's Report").
- The OFT's market study leading to its BAA reference to the Competition Commission (2007)⁴ ("OFT's Reference").
- Previous CAA assessments, including its advice to the Department of Transport recommending the de-designation of Stansted airport (2007)⁵; its scarce capacity decision on the Moscow route (2012)⁶ ("Scarce Capacity Decision"); its Guidance on

³ Competition Commission, *BAA airports market investigation - A report on the supply of airport services by BAA in the UK*, 19 March 2009: http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545.pdf

⁴ Office of Fair Trading, *BAA - The OFT's reference to the Competition Commission*, OFT912, April 2007.

⁵ Civil Aviation Authority, *De-designation of Manchester and Stansted airports for price control regulation - The CAA's advice to the Secretary of State*, July 2007.

⁶ CAA, Applications BA/SCAC/3 by British Airways Plc, EJ/SCAC/3 by easyJet Airline Company Limited and VN/SCAC/3 by Virgin Atlantic Airways Limited in respect of the route London–Moscow heard on 1 & 2 October 2012, *Decision On Scarce Capacity Allocation Certificates SCAC1/12*: <http://www.caa.co.uk/docs/213/20121024MoscowFinal1.pdf>

the assessment of airport market power (2011)⁷ ("CAA's Guidance") and supporting draft note on geographic markets⁸; and its Initial Views.

- The European Commission merger/competition decisions such as British Airways/Iberia⁹; IAG/BMI¹⁰ and Ryanair/Aer Lingus¹¹.

The review is organised around topics rather than reports/decisions so as to highlight the CAA's methodology, its application to the facts, and the market definitions which were found. We have focused on the CAA's approach to passenger services, leaving a detailed assessment of its treatment of the air cargo market to Section IV below.

A. PRODUCT MARKET

Product description

In the SMPA (para 7.2) the CAA defines the relevant market as:

core aeronautical services for LCCs and charter airlines covering a geographic market that includes at least Stansted, Luton, Southend and possibly Gatwick airports.

For these purposes, core aeronautical services are defined as (SMPA, para 4.164):

activities facilitating the use [of] the runway and taxi-ways, aerodrome ATC, aircraft parking, ramp handling services, fuel and oil handling, and aircraft maintenance as well as the minimum activities required for the process[ing] of passengers at the airport...

⁷ CAA, *Guidance on the Assessment of Airport Market Power*, April 2011: <http://www.caa.co.uk/docs/5/Final%20Competition%20Assessment%20Guidelines%20-%20FINAL.pdf>

⁸ Civil Aviation Authority, *Empirical methods for assessing geographic markets, in particular competitive constraints between neighbouring airports*, June 2011.

⁹ Case No COMP/M.5747 -Iberia/British Airways: http://ec.europa.eu/competition/mergers/cases/decisions/M5747_20100714_20310_802534_EN.pdf

¹⁰ Case No COMP/M.6447 - IAG/BMI: http://ec.europa.eu/competition/mergers/cases/decisions/m6447_20120330_20212_2452290_EN.pdf

¹¹ Case No COMP/M.4439 – Ryanair/Aer Lingus: http://ec.europa.eu/competition/mergers/cases/decisions/m4439_20070627_20610_en.pdf

Both the OFT and the Competition Commission have defined the passenger airport services product markets differently.

- The Competition Commission excluded commercial services, but defined “a bundled market for aeronautical services provided to airlines and their ground-handling agents” (CC’s Report, para 2.41). These mainly include landing and parking of aircrafts and passengers handling.
- The OFT (OFT Reference, para 4.5) market definition was wider than the CAA’s definition by including all other “services delivered directly to air passengers, and services to other commercial operators at airports”.
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- Neither the OFT nor the Competition Commission distinguished aeronautical services by LCCs and network airlines in the way that the CAA has sought to do in the SMPA. The OFT (OFT’s Reference, para 4.18) considered it unnecessary as “very few airports specialise exclusively in one type of flight” and “the same slot can often be used for domestic, short haul or long haul services”. The Competition Commission (CC’s Report, para 2.21) dismissed it on the grounds that “BAA airports do not charge different published prices to different users” and that when differences arise these are justified by costs. Further analysis on the issue was left to the Competition Commission’s second-stage competition assessment.

Market definition

The SMPA defines the product market based on the airlines that Stansted currently serves – LCCs and charter flights. There is no formal analysis of substitution either of passengers and/or airlines switching in response to an increase in airport charges. The CAA dismisses the relevance of Stansted’s long-haul capability on the grounds that there is a “perception” that it is a short-haul/LCC airport (SMPA, para 4.38). This approach is at odds with established precedent and practice.

- The CAA’s Initial Views addressed passengers and airlines separately. This led to the identification of an airport product which consisted of “a range of aeronautical and non-aeronautical services that are required for the reception, processing and boarding of passengers” (Initial Views, para 2.155). For airlines, the relevant product market included “any mid-sized airport (or larger) with an appropriate runway” provided that they grant access to a relatively large potential demand (Initial Views, para 2.76).
- The CAA’s Guidance (para 3.40) on market power assessment comments that “the boundaries between the various airline business models are becoming increasingly

blurred, with 'full service' carriers adopting pricing structures introduced by 'low cost' carriers". In the SMPA the CAA alters its position to dismiss consideration of any competitive constraints exercised by feeder flights.

- In European Commission airline merger decisions, LCCs and network airlines are seen as directly competitive. In the Ryanair/Aer Lingus decision (para 54), the product market was defined as "'point-to-point scheduled air transport passenger services" whereby each route between a point of origin and a point of destination should be defined as a separate market". Interestingly, Ryanair's submission that its peculiar business model meant that "it is not constrained by any competitor but [...] rather by the overall price sensitivity of its customer base" was rejected (Ryanair/Aer Lingus, para 52). The European Commission found that Ryanair did not act independently from other competitors (para 52 & 53), and therefore LCCs and other airlines were part of the same downstream market for the provision of passenger air transport services.
- The OFT's Reference considered both passenger and airline demand. While noting that airlines' operations from an airport was a longer term decision and that they "very rarely switch their entire service from one airport to another", the OFT considered that airlines have scope to decide whether "to concentrate on growing their business at one airport rather than another" (OFT's Reference, para 4.15). The OFT did not segment the market by type of airline because "very few airports specialise exclusively in one type of flight" and that "subject to some constraints (notably aircraft size) the same slot can often be used for domestic, short haul or long haul services" (OFT's Reference, para 4.18).
- The Competition Commission's analysis of the product market started by considering whether there was a wider transport market. It ruled this out on the grounds that "substitution of other methods of transport for air travel is too weak" (CC's Report, para 2.11), and focused on airport services. Three possible segmentations were subsequently explored:
 - By user type – rejected because airport charge differentials were cost-justified;
 - By airport characteristics – regarded as not relevant to market definition, and better dealt with in the second-stage competitive assessment (CC's Report, para 2.27):

[T]here is potential for all these airports to compete across a reasonable range of aircraft types and, given the comparatively small number of relevant airports, it seems appropriate to deal with such differences in airport characteristics in our competition analysis rather than by defining a number of overlapping markets...
 - By service provided – whereby retail services are excluded and car parking included within the relevant product bundle.

B. GEOGRAPHIC MARKET

In the SMPA (para 7.2), the CAA defines a “geographic market that includes at least Stansted, Luton, Southend and possibly Gatwick”. This represents a major change from the definition in its Initial Views, where it concluded that the relevant geographic market may be European-wide. The SMPA rules out a European-wide definition on the grounds that LLCs would not find it profitable to switch capacity given the strategic importance of a London base, and because a passenger in the London area cannot substitute a flight in another city/airport in Europe. As stated, this represents a major change of position.

- The CAA’s Initial Views defined two separate markets for passengers and airlines. Passengers are able to switch across all airports in the South East of England including Greater London¹², and for some passengers even wider comprising East Anglia.
- The CAA’s Guidance (para 3.67) takes a broader view of the ability of airlines to switch. Given the “ability of the airlines of Member States to operate flights between and within any Member States [...] it may be important to consider whether the ability of airlines to relocate their operations within or between different Member States constitutes a relevant competitive constraint”.

The SMPA also rules out a number of other adjacent airports because of capacity constraints, passenger catchment analysis and other demand side evidence, e.g. an alleged North-South London divide that would make Stansted an unsuitable choice for Southern Londoners. This is also contrary to previous practice.

- The OFT’s Reference concluded that the geographic market included the South East of England and East Anglia, i.e. “Heathrow, Gatwick, Stansted, Luton and City airports and potentially Southampton” (para 4.5). This was based exclusively on customers’ willingness to switch, guided by a catchment area and point of origin analysis.
- The CC’s Report left open geographic market definition as this better suited the type of analysis it was undertaking. However, its recommendation that BAA divest itself of Gatwick and Stansted on competition grounds was on the basis that all three BAA-owned

¹² Possibly excluding Heathrow due to congestion.

airports would have been in competition with each other absent their then common ownership.

- In July 2007, the CAA advised the Secretary of State to discontinue price regulation of Stansted. This was based on a relatively broad geographic market which included not only Greater London and East Anglia but also Birmingham and East Midlands airports. Moreover, the advice was made despite the BAA's common ownership of Stansted, Gatwick and Heathrow at the time.
- Several European Commission merger decisions consider airline competition on routes to and from London. In the Ryanair/Aer Lingus, Iberia/British Airways and IAG/BMI merger decisions, the Commission took the view that from the demand-side perspective the market should be defined route by route on a city-pair basis at least for point-to-point customers. This implies that all airlines connecting two cities compete with each other, regardless of whether they operate from the same airport(s), e.g. a flight from Dublin to Stansted is substitutable with a flight from Dublin to Gatwick. For instance, in the Ryanair/Aer Lingus decision the Commission held that "services between Dublin Airport and the airports of Stansted, Gatwick and Luton belong to the same market" (para 121).
- The CAA's own Scarce Capacity Decision for the London to Moscow route defined the relevant geographic market as the London-Moscow route. The CAA stated (referring to the IAG/BMI merger):

92. In that decision, the Commission discussed a working paper of the CAA analysing the catchment areas of Heathrow, Gatwick, Luton and Stansted. As noted by the Commission, that paper concluded that there was a considerable extent of catchment area overlap between Heathrow, Gatwick, Luton and Stansted, although the Commission was unable to conclude whether or not flights offered from these various airports are substitutable for passengers travelling on specific routes. In its decision, the Commission also considered the CAA's initial view on airport market power, which was published in January 2012 and which is subject to revision on the basis of comments received. This suggests that there is a degree of substitutability between Gatwick and Heathrow. The CAA notes that easyJet's argument that many passengers would be willing and able to travel through either Heathrow or Gatwick is consistent with these assessments.

C. GENERAL APPROACH AND FRAMEWORK (VERTICAL VS. MULTI-SIDED)

The CAA and the European and UK competition authorities' general approaches to market definition are similar.

Market definition is treated as largely determined by demand-side factors, and in particular by the application of the SSNIP test which defines a market in terms of consumers' reaction to a 5% or

10% increase in prices above the competitive level. This approach is set out in more detail below. The CAA accepts, like the OFT's and European Commission's market definition guidelines, that the SSNIP test often cannot be applied in practice but provides a framework or "thought experiment".

What differs is the weight given to aspects of the market definition test and the characterisation of airports as economic products/services. It would be fair to say that the SMPA seeks to simplify the nature of the airport services market and to treat airports as providing relatively straightforward locationally fixed infrastructure services, which in Stansted's case are "essential" to LCCs and charter airlines which currently operate there.

This contrasts with the CAA's Guidance, which accepts that an airport is a multi-sided platform that "face[s] demands from several user groups – including airlines, passengers, cargo shippers and retailers – that are likely to be somewhat interdependent". As a result, when setting prices and making investment decisions, airports would be expected to take account of the impact on demand of all user groups" (CAA's Guidance, para 3.20). It advises that one should "assess the impacts of raising prices to each side of the market individually, while accounting for the feedback effects on other sides of the market" (CAA's Guidance, para 3.25). The CAA's Guidance notes that the application of the multi-sided market framework is to be decided case by case.

However, the SMPA states that Stansted is not a platform of a two-sided market and analyses market definition in terms of a derived demand approach (see below Section III). Yet in the critical loss analysis it takes account of non-aeronautical revenues, thus accepting in practice that an airport is a two-sided market.

The SMPA contrasts also with the CAA's approach in its Initial Views, where it states (para 6) that "[e]ach of these user groups could be considered as different 'sides' of the airport market; each with its own characteristics and ability to respond to changes in the price and service offered by Stansted". Initial Views (para 2.166) continues that "the retail revenues generated from passengers are likely to have a significant impact on the airport's incentives to raise prices to airlines, due to the adverse impact that lower passenger numbers have on profitability". And further:

2.153 Indeed, reflecting the linkages between them, it is likely that the reaction of passengers, cargo carriers or airlines to changing prices and/or service quality will precipitate a reaction from the other (interdependent) users. These reactions may then act together to affect the profitability of such a change in price for the airport and, ultimately, determine the extent of the market power enjoyed by the airport.

The SMPA marks a radical and unjustified rejection of this firmly expressed position in the Initial Views.

While we have not found such explicit reference to the multi-sided market framework in other CAA documents or decisions¹³, much more weight is given in these decisions to the interaction between different user groups, and the way these affect market definition and limit market power. Indeed, the multi-sided market notion is implicit in the CAA's "single till" approach to price cap regulation of airports used by the CAA since 1987.

In this context, it may also be instructive to note that the OFT's Reference (para 4.7) states that "[d]emand by passengers for services at the airport (such as shops and car parks) depends on passenger demand for (and airlines' supply of) flights. The airport receives income from passengers, airlines and other commercial operators".

The CAA ignores the effects of existing regulation and the recent common ownership of Stansted, Gatwick and Heathrow, and the way these may bias the evidence it uses. In the SMPA (para 4.111), it dismisses the need for this stating that it "cannot take this into account in our present market definition assessment given the level of uncertainty (both in terms of timing and scale) attached to this potential change". This refusal to consider the past common ownership of Stansted is flawed in two respects. First, it cannot be correct in an exercise designed to impose *ex ante* regulation. Second, the probative value of past evidence will be significantly reduced as it is tainted by BAA's common ownership which has inhibited competition between the major London airports.

This element has been consistently taken into account in the other decisions we reviewed.

- In the OFT's Reference (para 4.53), it is stated that the evidence of limited switching of airlines across airports "may well reflect that airports which are under joint ownership do not have an incentive to steal business from one another".
- The CC's Report (para 3.11) states:

As already mentioned, charges at BAA's three London airports (Heathrow, Gatwick and Stansted) are currently constrained by price control. However, price control may be a result of BAA's common ownership of the three largest London airports. It is therefore possible that under separate ownership regulation would not be required. This implies that we need to assess the potential for airport competition in the absence of regulation (both with and without common ownership).

- And again (CC's Report, p. 41, n. 4):

¹³ Possibly reflecting the relative novelty of these issues in competitive assessments.

It would be circular to assume the persistence of price cap regulation when evaluating the scope for competition between BAA's airports if the price cap regulation is simply a remedy for BAA's common ownership.¹⁴

- The CAA's Guidance (para 3.15) states that the hypothetical monopolist test involves an increase in prices above the competitive level, and that "the prevailing or historical price levels and structures may not always be a good indicator of the competitive price level, due to the presence of regulation and the potential for one or more airports to have SMP".
- The CAA's draft working paper on empirical methods for geographic market definition¹⁵ (para 1.9) warns that historical data cannot "capture the potential for airports, airlines or passengers to change their behaviour and preferences in the future (an issue that is particularly relevant to forward-looking analysis of airport competition)", along with the risk that "[w]here prevailing prices diverge from the competitive price level there is a risk that analysis based on historical data might lead to defining the relevant market too widely (if prevailing prices are above the competitive price) or too narrowly (if prevailing prices are below the competitive level)]".

D. CONCLUSIONS AND SUMMARY

Table 2.1 below summarises the CAA's various positions and those of the UK and EC competition authorities' product and geographic market definitions (last two columns). It also lists the factors that each of regulator took into account in reaching their respective market definitions in terms of whether a one- or multi-sided framework was used (Col. 2); the weight given to passenger switching (Col. 3); and the weight given to airlines switching across airports (Col. 4).

¹⁴ Stansted has been regulated by a price cap since 1987. A new and current charges regime was introduced in 2009.

¹⁵ Civil Aviation Authority, *Empirical methods for assessing geographic markets, in particular competitive constraints between neighbouring airports*, June 2011.

Table 2.1 – Approaches and outcomes to market definition

	Multi-sidedness	Passengers switching	Airlines switching	Product market	Geographic market
CAA “Minded to” (SMPA)	✗	✗	✗	LCC short-haul aeronautical services	Stansted, Luton, Southend and possibly Gatwick
CAA Initial views	✓	✓	✓	Aeronautical and non-aeronautical activities.	South East of England for passengers; Europe-wide for airlines
CAA Guidance	✓	✓	✓	-	-
CAA Price control review	✗	✓	✗	Leisure passengers and airlines	London area and possibly East Anglia, Birmingham and East Midlands
Competition Commission (CC's Report)	✗	✓	-	All aeronautical services	No explicit definition – but London airports included
OFT's Reference	✗	✓	✗	All airport services to all type of users	South East of England and East Anglia
EC Decisions	-	✓	-	-	City-pairs, London airports in the same market

Notes: the table considers only whether the issue was considered in relation to market definition; it might be the case that it has been considered to, for instance, assess market power. The dash indicates ‘not applicable’ or ‘not relevant’.

Table 2.1 makes clear that the SMPA defines narrower markets compared to CAA previous practice and compared to the UK competition authorities. EU decisions are not directly comparable as they involved airlines and not airports.

III. ASSESSMENT OF SMPA

This section undertakes a critical assessment of the CAA's approach, analysis, and evidence supporting its market definitions.

A. PROVING FACTS

As a preliminary matter we address the CAA's request (SMPA, Summary, para 1) for comments on its treatment of the evidence it has used to support its analysis and various findings.

The CAA rightly points out that often it must exercise its judgement in interpreting the evidence and coming to a conclusion. This is correct and it has discretion. But its decisions are reviewable and the evidence, including whether there is substantial market power, must be proved on the balance of probabilities. Thus a fact need not be a certainty, but its existence needs to be more likely than not.

While regulatory proceedings are not governed by court procedural rules, they are in our opinion bound to conform to the civilian standard of proof. This is because the CAA's decisions can be appealed to and reviewed by the Competition Appeal Tribunal (CAT). The CAT reviews decisions based on the more likely than not standard of proof. It has been harsh on sectoral regulators who have not taken account of all the available evidence, have failed to test the evidence, and have engaged in poor analysis.

Therefore the CAA should be satisfied that the facts and evidence are "proven" on the balance of probabilities.

In our opinion the more likely than not standard has not been applied by the CAA generally, and in particular in assessing stakeholders' submissions. Direct contemporaneous evidence of a company's actions, responses and decisions has a high probative value. Company statements made to regulators, and theories and indirect evidence submitted specifically for regulatory

consultations must be put to proof. An important aspect of proof is that they find support in the past actions of the respective stakeholders where this is the relevant benchmark.

In particular, some stakeholders' submissions are patently inconsistent with their past actions and contemporaneous statements of the commercial reasons for those actions. This is the case for Ryanair which is quoted frequently in the SMPA. We note that the CAA (SMPA, para 5.22) has in one instance questioned Ryanair how one of its submissions can be reconciled with its press releases and public statement, to which Ryanair has replied that they “do not provide ‘reconciliations’ to press releases which are forward looking statements and in some cases are part of a negotiating process with a particular airport”. We only note here that this approach of a publicly listed company reduces the value of evidence, especially regarding its motivations and business strategy it provides the CAA, and must be treated with caution. We refer the CAA to instances of this and set out our concerns where relevant below.

There are several other related observations on the CAA’s treatment of evidence:

- There is an additional burden on the CAA given its radical change in its views as set down in Initial Views.
- The uncritical acceptance of many stakeholders “submissions” which are not supported by any proven facts, and where the CAA has made little effort to analyse the facts, e.g. Ryanair’s failure to provide supporting yield analysis.
- Often the discussion/analysis tends to use evidence selectively or to assert facts and in many key areas smacks of what in regulatory circles is known as “confirmation bias”.

B. CAA’s MARKET DEFINITION FRAMEWORK

CAA's Guidance (2011)

The CAA's Guidance¹⁶ draws extensively from the market definition guidelines of the European Commission¹⁷ and the OFT¹⁸. It is consistent with these, and seems to correctly draw attention to

¹⁶ See also Civil Aviation Authority, *Empirical methods for assessing geographic markets, in particular competitive constraints between neighbouring airports*, 2011. Civil Aviation Authority, *Catchment Area Analysis - Working Paper*, October 2011.

the application and limitations of its approach to market definition, and the special features of airports which need to be considered.

The CAA's Guidance and SMPA adopt the hypothetical monopoly or SSNIP test to define product and geographic markets. The SSNIP test defines a market on the basis of whether a hypothetical monopolist of airports would find it profitable to raise prices by 5% or 10% within one year. The market is widened by the inclusion of more airports and alternative infrastructure until such time as the hypothetical monopolist of all the products under consideration finds it profitable to raise its price.

The SSNIP test is acknowledged as a useful approach, a “means rather than end”, a tool of analysis, and more prosaically as a “thought experiment”. Its purpose is to assist in identifying the competitive constraints on firms (airports) in the market.

The CAA states that it cannot apply the SSNIP test to Stansted because of data limitations. It uses it instead as a framework with which to marshal indirect evidence of market definition (SMPA, para 4.5). We have no problem with this stance, given that typically in competition assessments data is patchy or unavailable.

But there are several issues arising from the CAA's Guidance and the CAA's application of the SSNIP framework which warrant comment.

The first is the failure of the CAA's Guidance to acknowledge and distinguish *ex ante* and *ex post* market definitions, and the CAA's failure to apply the former in the SMPA. An *ex post* market definition is used to assess abuses under competition law. It is based on a set of deliberately restrictive assumptions as set out in the CAA's Guidance – it identifies the **narrowest** set of products constituting a market based on **short term** (usually within one year) switching in response to a 5% or 10% price increase, and largely **ignores supply-side factors**.

The present market investigation is not concerned with identifying a past competition abuse. It is aimed at identifying the grounds for the imposition of *ex ante* regulation. Market definition is part of “Test A” under the *Civil Aviation Act 2012* which is a necessary condition (trigger) for the possible imposition of *ex ante* price and other regulatory controls on an airport. As other regulators and the European Commission have noted, *ex ante* market definition differs from *ex*

¹⁷ European Commission Notice on the definition of relevant market for the purposes of Community competition law, Official Journal C 372, 09/12/1997 P. 0005 – 0013.

¹⁸ *Market Definition* (OFT403) 2004; *Assessment of Market Power* (OFT415), 2004.

post market definition in being more forward-looking, using a longer timeframe, and giving greater weight to supply-side factors, especially where *ex ante* regulation is designed to maintain investment incentives.

There are several other concerns with the way the CAA has applied the SSNIP framework:

1. The CAA acknowledges that the SSNIP must be applied to the competitive price (CAA's Guidance, para 3.15 - 3.19; SMPA, para 4.4). Failure to do so can lead to an excessively narrow or wide market definition depending on whether the actual price is below or above the competitive price respectively.¹⁹ The CAA has ignored this pre-requisite in light of evidence that Stansted's charges have historically been below the competitive level and the contentious nature of the research which shows that they are presently at or above the competitive level. If it is correct that Stansted's past airport charges were below the competitive charge, the evidence of switching or lack of switching is an unreliable indicator of market definition.
2. The requirement that markets be defined with respect to the competitive price extends to other competitive conditions. Thus the common ownership of London airports should be stripped out when applying the SSNIP test. In other regulatory contexts where the SSNIP test is used to determine *ex ante* regulatory obligations, existing regulation and structural and institutional factors not consistent with a competitive market are assumed absent²⁰. This has been referred to as the "modified Greenfield approach".²¹ We have already commented that the CAA has completely ignored this factor.

¹⁹ This qualification however begs the question of what the competitive price is given the large fixed and sunk infrastructure costs associated with airports.

²⁰ *Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services* (2002/C 165/03). *Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services* (2007/879/EC). Also Commission Staff Working Document, *Explanatory Note Accompanying document to the Commission Recommendation on Relevant Product and Service Markets*, C(2007) 5406 (2nd edn., 2007).

²¹ Martin Cave, Ulrich Stumpf & Tommaso Valletti, *A Review of Certain Markets included in the Commission's Recommendation on Relevant Markets Subject to ex ante Regulation*, Independent study for European Commission, July 2006.

3. The CAA's (SMPA, para 4.3) claim that the SSNIP test defines the **widest** relevant product and geographical market is incorrect. The SSNIP test defines the **narrowest** range of products and geographic market as stated in the CAA's Guidance (para 3.10).
4. There is an acceptance that the SSNIP is extremely difficult to apply even in theory where there are multi-sided markets, and there are no examples of this being done. This, arguably, suggests that the SSNIP may not provide a suitable approach to the assessment of two-sided markets. The CAA has therefore ignored this, and proceeded on the assumption (see below) that the airport market can be defined in terms of airline and passenger demand for airport aeronautic services separately, and ignoring any consideration in its discussion of market definition of non-aeronautical services.
5. Even ignoring this and adopting the one-sided market approach as the CAA does, the CAA's Guidance and the SMPA provide a confused and indeterminate analysis of the interrelationship between the direct demand from airlines for airport services and the indirect demand of passengers via their demand for the downstream services of airlines. The Guidance provides no treatment of the functional dimensions of markets and their interrelationships when assessing the upstream aeronautical airport services. To be fair, the treatment of the functional dimension of markets is generally ignored and poorly dealt with in many market definition guidelines, but this does not excuse the confused analysis contained in the SMPA.

We establish below that the CAA has not applied its own framework to address market definition, especially for passenger services. With the exception of critical loss analysis and one or two other sections, the CAA has not addressed the core issue of the SSNIP test/framework and market definition. There is little analysis of whether a SSNIP in airport charges would lead to significant passenger and airline switching to make the increase unprofitable. Further, we will show that where it does consider this question, the CAA too readily ignores whether the price and structural conditions were competitive, uses averages rather than marginal effects, and incorrect data.

CAA's Dismissal of Multi-Sided Market Unconvincing

The CAA expressly rejects the view that Stansted airport is a multi-sided platform. We are of the opinion that the CAA's approach and arguments are flawed.

The CAA accepts that airports are multi-sided platforms (CAA's Guidance, para 3.20-3.26), but in the SMPA (para 4.14) concludes that "STAL does not strongly exhibit in practice the characteristics of a multi-sided platform". The CAA therefore "proposes to adopt a conventional approach based on derived demand in a vertical relationship". This conventional – one-sided market – approach is described as follows:

4.17 The CAA considers that its analysis should start with the evaluation of airlines of the substitutability of other airports for Stansted and where possible evidence on airlines' actual switching behaviour, as they provide the initial response to a pricing change. Passenger ability to respond to the price increase is derived as they are impacted by the airlines response only being exposed to the pricing of the airport after the airline has enacted its response.

Nature of Multi-sided Markets

An airport is a multi-sided platform. It provides a platform where passengers, airlines, retailers and other users can transact or increase their business.²² Passengers are attracted by the availability, choice and price of flights; passenger airlines use the airport to service their passengers, and the throughput of outbound passengers attracts retailers who sell goods and food to waiting passengers, and other commercial activities at the airport, e.g. parking (see Figure 3.1 below).²³

Rochet and Tirole²⁴ emphasise the pricing aspects of multi-sided markets – a two-sided market is one where total output depends both on the distribution of prices and their aggregate level. This means that “balancing” prices on both sides of the market is important because the price to one group of customers not only affects their demand, but also the demand of the other groups of customers. This leads to some fundamental principles of two-sided markets, namely that:

- both or all sides of the market must be analysed;
- the success of a platform in attracting one type of user determines its attractiveness to the other types of users;
- the structure of prices is as important as their level in determining demand and output; and

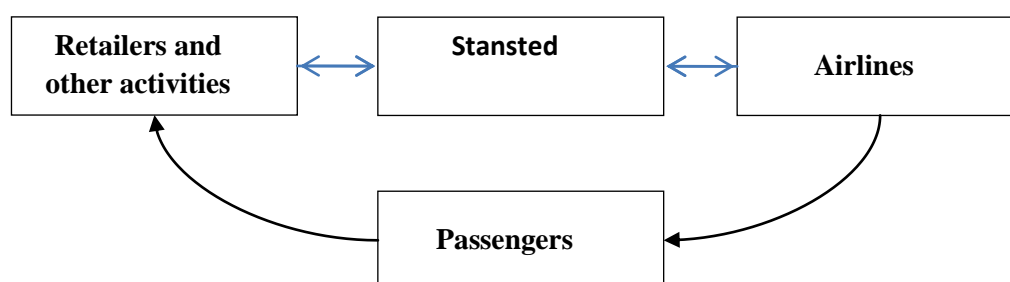
²² Economists have given formal definitions of multi-sided markets. Rochet and Tirole (J-C Rochet & J Tirole, “Two-sided Market: An Overview”, mimeo, IDEI & GREMAQ, 2004.) say that multi-sided markets are “characterized by the presence of two distinct sides whose ultimate benefit stems from interacting through a common platform”. Mark Armstrong says that in a multi-sided market “the benefit enjoyed by a member of one group depends upon how well the platform does in attracting custom from the other group”. Armstrong focuses on the complementary nature of users in both sides of the market, and their interrelationship.

²³ See David Starkie and George Yarrow in a paper commissioned by the CAA (“Market Definition in the Airports Sector”) and quoted in the SMPA (para 4.7).

²⁴ Rochet & Tirole *op cit*.

- crucially, individual prices in competitive two-sided markets are determined by demand-side factors and not only costs. In a competitive two-sided market prices charged to one side are not necessarily set equal to the marginal cost of serving that side, but also depend on demand characteristics of the other side of the market. It is the sum of prices that will be equal to marginal costs.

Figure 3.1 – Stansted role as a platform of a multi-sided market



Thus when a profit maximising airport considers its pricing strategy towards the airlines, it will take into account the impact on its other revenues which are driven by passenger numbers (and aircraft movements). To the extent that airlines pass on airport charge increases to their passengers, the market price elasticity of demand for passenger air services generates a fall in passengers' volume. And to the extent that the airlines absorb part of the charge, this will reduce the airlines' yield on routes from the airport and may lead the airlines to redeploy their aircraft, which in turn reinforces the adverse passenger effect. The consequent reduction in flights/routes on passengers may cause a further drop in demand. Inasmuch as passengers' volume declines, the airport would face a decrease in its non-aeronautical revenues. In other words, a charge increase by an airport to an airline triggers a circle of reactions from airlines, passengers and retailers that amplifies the effect of that initial price increase.²⁵

The issue is not trivial. About 44% of Stansted's last reported annual revenues are from the provision of non-aeronautical services, in particular retail rentals and parking fees. Therefore as a matter of fact and economic analysis it is difficult to agree with the CAA that, in defining the airport market, the two revenue streams should not be taken into account.

²⁵ A multi-sided market also has common costs. Where an asset serves several activities there is a cost complementarity and problems of cost imputation given the high infrastructure costs.

CAA's dismissal of Multi-sided Markets is unconvincing

The CAA's (SMPA, para 4.8) dismissal of Stansted as a multi-sided platform is based on the inapplicability of what it considers the three essential elements of a multi-sided market:

- the existence of network effects;
- marketing activities carried out by the airport operator to attract passengers and airlines; and
- the existence of a stream of commercial revenue driven by passenger volumes.

We do not accept that these are the essential features of a multi-sided market, but more significantly we reject the CAA's view that Stansted does not satisfy these conditions. And more importantly, we reject the relevance of the CAA's discussion of whether Stansted satisfies these conditions.

Existence of network effects

We agree that a two-sided market is a species of network effects.²⁶ But it is definitely not the type of "network effect" discussed by the CAA in dismissing the relevance of network effects to Stansted.

The CAA's discussion assumes that a two-sided market exists only when an airport provides services to network airlines which offer interlining and other interconnection possibilities to passengers (SMPA, para 4.9). Since the airlines using Stansted are LCCs providing point-to-point services, the CAA contends that Stansted generates no network effects.

This is incorrect. The network effects at the core of a multi-sided market are indirect network effects resulting from demand inter-dependencies between different classes of customers (as the CAA recognises in the CAA's Guidance (para 3.23)). The network effects arising from network airlines are, first, supply-side economies arising from the hub-and-spoke network architecture and other interconnection arrangements and, second, the demand effect associated with the increased quality of the airlines' service in terms of coverage and frequency of flights for long–

²⁶ The most straightforward network effect is where the demand for a service/product depends on the number of other people using it, e.g. e-mail or telephone. This is known as a direct network effect which affects only one side of the market. It is not the same as the demand interdependency between different sides of the market in a multi-sided market.

distance passengers. These are not the type of demand inter-dependencies associated with an airport as a multi-sided platform, which have to do with passenger throughput and the airport's provision of services to airlines and retailers.

Further, interlining is a one-sided market effect arising from supply and demand side complementarities in the provision of the passenger services only. Interlining is when individual airlines have an agreement on how to handle passengers and their baggage travelling on itineraries that require multiple airlines. It enables the passenger to buy a single ticket for the journey issued under the name of the first airline with interconnection and baggage handling by subsequent airlines which are used to complete the journey.

Thus the existence or otherwise of a multi-sided market is unaffected by whether LCCs or network carriers use an airport.

Marketing activities carried out by the airport operator to attract passengers and airlines

The SMPA (para 4.10) says that because Stansted does not directly market itself to passengers it is not a multi-sided platform: "The primary focus of its [Stansted's] marketing activities is on attracting airlines to the airport and supporting the airlines business"; and (SMPA, para 4.11) "STAL currently does little in the way of matching airlines to passengers". We have not reviewed the evidence on this issue but regard the point as misconceived.

There is nothing in the definition of a multi-sided market that says that the platform provider must market directly to the customers of one side of the market. The airport's main direct customers are airlines and retailers, not passengers. As the definition of a multi-sided market makes clear, the airport's role is to provide the platform for the interaction of different groups of suppliers and customers. Passengers are attracted to an airport because they want to travel – thus if there are no airlines, there is no business for the airport or its retailers. Stansted's business relies on the way it markets itself to airlines, not on whether it markets directly to passengers.

Indeed, it would be hard to envisage what an airport's marketing efforts directed at potential passengers would be independent of the marketing effort of the airlines using the airport. And it would be difficult to explain how the benefits of this marketing could be recouped from the airlines which are in direct competition with one another at the airport.

Some airports, not Stansted, directly market their retail activities to attract local residents to shop at the airport. But this is a very different issue to that considered by the CAA.

Existence of a stream of commercial revenue driven by passenger volumes

The CAA claims that retail revenues are not related to passenger throughput. It says that there is no documentary evidence that Stansted took into account its commercial revenues when it increased charges in 2007, and that its commercial income comes in part from flat concession fees paid by retailers. Therefore, says the CAA, Stansted's commercial revenues are not related to passenger numbers and aircraft movements on the aeronautical side.

This again is not accepted. It simply cannot be maintained that there is no inter-dependence between commercial revenue and passengers' numbers. Non-aeronautical revenue represents 44% of Stansted's total revenue. Given its magnitude, it is inconceivable on any rational basis that this could be ignored by the airport, or how it would not influence the profitability of a price increase, notwithstanding other factors will have at times a greater impact on Stansted's pricing decisions, e.g. when its prices are well below costs.

It is not clear as a matter of documentary evidence that Stansted has ignored commercial revenues. Stansted's new owner, M.A.G, has plans to expand the retail business, to increase its retail revenue per passenger. We are also informed that Stansted is negotiating with Ryanair over the loosening of the one-bag rule to remove a constraint on passengers' expenditure at the airport. We understand that the contractual arrangements between Stansted and the airlines did entail a substantial rebate on airport charges if a certain threshold in passenger numbers was exceeded. In addition, Stansted's Conditions of Use state that the airport "has the discretion to abate or waive landing, departing passenger or parking charges for any specified category of traffic and/or when they consider it is in the interest of the Airport Company to encourage the development of traffic at the airport" (para 4.3.1). The heavily discounted charges in place till 2007 were indeed aimed at building passenger volume. This is direct evidence that Stansted saw a relationship between passenger numbers and total revenue.

As regards the pricing of commercial retail space, the fact that a two-part pricing arrangement is used incorporating a flat rate concession does not mean that passenger numbers have little impact on Stansted's commercial revenues. Clearly the flat rate concession fee will depend on passenger numbers and be re-negotiated periodically in light of the volume of passenger-related business. The mere fact that it is a flat rate says little about the way it has been determined.²⁷

²⁷ The CAA notes Stansted's comment that this is the case (SMPA, p. 46 n. 90)

Stansted's actions are irrelevant

There is a more fundamental criticism of the CAA's analysis which makes its observations on the above issue irrelevant. In defining a market, it is not what Stansted does or does not do, but what the hypothetical airport monopolist would have done. Thus even if one were prepared to accept the claim that Stansted is oblivious to the impact of airline charges on its other commercial business activities, this would not be relevant at this stage of the analysis. As the CAA stresses elsewhere, the relevant product and geographical markets must be defined under conditions of profit maximisation and competition. Market definition is supposed to look at what would be the case if Stansted and other airports adopted a competitive pricing regime, or what has been referred to above as a "modified Greenfield approach". It is in the technical parlance of competition analysis that actual actions and outcomes be evaluated against a "counterfactual" or benchmark. It is therefore not open to the CAA to dismiss the approach simply because it claims that in practice one airport has allegedly adopted a non-competitive pricing arrangement.

We also note here that in the rare occasion when the CAA directly examines the SSNIP test, the resulting critical loss analysis in fact takes a multi-sided market approach by including commercial revenues, and assuming in contradiction to the CAA position stated above that 100% of retail revenues are directly related to passenger numbers.

C. PRODUCT MARKET DEFINITION

CAA's Position

The CAA uses the *Civil Aviation Act 2012* as a springboard for its product market definition (SMPA, para 4.20):

the primary function [of an airport] ... is to provide access to the infrastructure ... for the landing of aircraft and the processing of passengers and cargo.

Aeronautical services are defined (SMPA, para 4.164) as:

activities facilitating the use [of] the runway and taxi-ways, aerodrome ATC, aircraft parking, ramp handling services, fuel and oil handling, and aircraft maintenance, as well as the minimum activities required for the process[ing] of passengers at the airport.

The CAA treats retail and aeronautical services as separate products. This is based on the observation that “all shoppers are fliers, but not all fliers shop”.²⁸ While it is certainly true “not all fliers shop”, Stansted’s retail business would not exist but for fliers.

The CAA then looks at whether further segmentation of the market is justified in terms of long versus short-haul airlines/flights; Stansted-based versus inbound airlines, and air cargo. We have no issue with whether Stansted-based and inbound airlines are in the same market, and deal with the air cargo market separately (Section IV below). Here we focus on whether the segmentation of airlines into long-haul and short-haul is appropriate.

Market Segmentation

The CAA (SMPA, para 4.43) states that the airport services market can be segmented by “the types of aircraft that can be served from the present infrastructure”:

4.44 At this stage, the CAA is minded to consider that it is appropriate to segregate the airport operation service market by service provided to short-haul LCC and charter operators against those provided to full service Long-Haul carriers and associated feeder traffic. This segregation is based on the demand characteristics of these broad airline groups as well as limited opportunities for supply-side substitution.

Demand Side

The CAA has not applied the SSNIP framework to delineating the relevant product market. Contrary to the preceding quotation, there is no demand-side analysis of passenger and airline substitution in response to a SSNIP. Rather the CAA has based its product market definition solely on observations about differences between LCCs and network airline services, and the “perception” about Stansted’s inability to cater for network airlines.

There is also no analysis to support the exclusion of short-haul flights operated by network carriers. These compete for passengers and offer a similar service to LCCs; indeed, the network carriers’ short-haul offer has evolved to respond to the threat posed by LCCs.

The CAA accepts that Stansted is capable of taking long and short-haul aircraft. But because it caters only for short-haul LCC and charter airlines, the CAA concludes that this is sufficient to

²⁸ It is not true that all shoppers are fliers; many airports get a reasonable proportion of sales from employees/visitors/meters and greeters.

define a narrow product market. There is no analysis supporting this, other than the claim that the market is defined by what Stansted currently does.

To repeat a fundamental point, determining the product market must take place under competitive conditions absent regulation, common ownership and current practices. We know from previous reports and economic analysis that a possible reason why Stansted may have been restricted to short-haul airlines is BAA's common ownership. But the fact remains, Stansted can accommodate long-haul aircraft and therefore it is in the same market as other long-haul airports and short-haul airports.

Supply Side

We also do not agree with the CAA's supply-side discussion. It focuses on the wrong supply-side response, and comes to the wrong conclusion about supply-side factors.

The CAA discusses the conversion of military airports and the construction of new runways at existing airports, and rules these out because they do not provide a short term competitive constraint on Stansted (SMPA, para 4.39-4.43).

We agree that building, converting and/or extending an airport is a long-term event which would not be considered as part of defining a product market.

But the CAA failed to consider the real supply-side response – Stansted's ability to accommodate long-haul aircraft. Stansted's latent capacity is a relevant supply-side response that places it in the same product market as other airports providing long and short-haul airport services.

Further we do not understand the relevance of the CAA's discussion of Luton and Southend in the SMPA (para 4.41):

4.41 To illustrate this we focus on one of the main factors that has an impact on the ability of certain airlines to operate from particular airports that is the length of the runway. Long-haul services for example in the main tend to be operated with larger aircraft than those used by short-haul operators, and therefore require longer runways for take-off and landing. We note that with a 3km runway, Stansted is able to offer both short-haul and long-haul services, whereas nearby airports such as Luton and Southend are restricted in terms of the type of operators they can support.

- Luton told the CAA that *"The [Luton] runway of approximately 2km in length largely precludes long-haul traffic from operating. The model is based on high frequency; short sector (mostly 2 hours and a couple of 5/6hours)"*.
- Southend noted that it considers that one reason why easyJet is at its airport is that Ryanair would have challenges operating its type of aircraft from the airport and that this represents a

good opportunity for growth. There may be a parallel with Flybe's success from Southampton because easyJet and Ryanair cannot effectively operate there. [footnotes omitted]

To the extent that an economic proposition can be picked out of the CAA's discussion, it is that of asymmetric product market definition. Namely that Stansted provides a competitive constraint on short-haul flights at Luton and Southend and vice versa, but that Luton and Southend would not provide a competitive constraint on long-haul flights from Stansted (and Gatwick and Heathrow). However this operates to confine the market for Southend and Luton, and not Stansted with respect to long-haul services.

Conclusion

We are of the opinion that the CAA has failed to properly define the product market, and has erroneously considered supply-side factors in narrowing the market to Stansted's present activities. This is even ignoring the fact that the CAA has not taken a forward looking approach to examine whether it is more likely than not that Stansted would act as a potential constraint on airport charges for long-haul aircraft.

D. GEOGRAPHIC MARKET

CAA's Position

The CAA defines the geographic market as the London airports of Stansted, Luton, Southend and possibly Gatwick.

The CAA has interpreted the evidence to suggest that these "Stansted area" airports face limited constraints from the remaining London and other airports due to distance, customer preferences, limited route overlap and other indirect evidence. This evidence is far from extensive or conclusive.

We do not propose to examine this evidence in detail. While it is common in transport studies to use this type of evidence and analysis, they fail to take account of the central consideration of market definition, namely the reaction of the subset of marginal customers, airlines and routes to the SSNIP imposed by a hypothetical monopolist from a starting point of otherwise fully competitive conditions. Thus the reference to specific airports, existing actions/reactions, and to surveys of passenger preferences and overlapping catchment areas is in our view peripheral.

Indeed it is a feature of the CAA's market definition analysis that it fails to properly appreciate that the SSNIP and other tests for market definition are based on the reaction of a subset of marginal customers, airlines, or routes rather than some representative reaction of what the

average passenger or airline would do. At other times the CAA argues that the action needs to be 'all or nothing' – either the airline operates invariably out of Stansted making Stansted the geographic market, or it must move its entire base away from Stansted in response to a SSNIP to widen the geographic market. This is patently wrong. The repeated reference to either the relatively large proportion of passengers that regard airport location as important says nothing about how they are likely to react to a SSNIP. It is the overall reaction (marginal impact) of the change in price over the entire market which may involve a relatively small subset of individual passengers and airlines to change their actions only.

To illustrate, the CAA states in the SMPA:

4.95 Analysis of the 2011 CAA passenger survey supports this view; showing that location of and access to the airport are the primary reason for choosing departure airport, although this was the reason given by only 36 per cent of passengers for a London airport, compared to 62 per cent for a non-London airport. This suggests that passengers for London airports are less concerned with location. This could be driven by the fact that a high proportion of passengers at these airports come from the central London districts (as illustrated below) where there are a number of surface access options available to all of the London airports. The evidence also shows that this varies by service.

It is not clear how one translates this survey finding into a price elasticity estimate of passenger demand for passenger services, or a statement of passengers' reaction to increased airport charges. Surely the over 60% and 30% of passengers for whom airport location is not a primary consideration, including some who regard airport location as important, would provide a sufficient subset of price sensitive passengers to decrease their air travel, or seek an alternative airport should airfares increase.

Similarly, the CAA (SMPA, 4.86) notes that 70% of routes from Stansted are served by another airport, i.e. Birmingham, East Midlands, Gatwick or Luton. The CAA concludes (SMPA, para 4.92):

4.92 Although far from definitive this is supportive of the evidence that the CAA has received to date showing that for both of Stansted's largest airlines there is lower route overlap between Stansted and Luton than between Stansted and other possible competing airports, thus suggesting that from an airline perspective, Luton may be perceived as a closer substitute to Stansted than other London airports.

While this may be the case, this observation is not evidence of the full extent of the competitive constraint – which is the cumulative effect of all substitutable routes, and not just those for a particular airport that has more overlapping routes than another.

Passengers or airlines?

The CAA goes on to discuss the inter-relationship between passenger and airline demand which affects the competitive constraints on airports. The SMPA (para 4.53-4.56) comments (emphasis added):

4.53 In this section, the CAA considers the geographic market definition. It is important to note that there may be different relevant geographic markets for different groups of users. The CAA's Guidelines state:

'The CAA considers that passenger switching is likely to be a significant focus of geographic market definition. However it may also be important to consider the interdependencies with, or feedback effects from, the airport's other user groups.

Whilst geographic market definition might be focused on the potential for passengers to switch between airports, it will also be important to ensure that the ability of airlines to switch away from an airport – potentially to a relatively distant airport – is included within the wider assessment of competitive constraints [...]. Assessing the likelihood that airlines and passengers take these choices, and the impact this would have on the airport in question, is at the core not only of the market definition but also of the assessment of the strength of competitive constraints an airport is facing.'

4.54 In common with other authorities carrying out such analysis, the CAA has sought to understand passengers' likelihood to switch in response to a price rise using passenger surveys and catchment area analysis. However, as part of the analysis of derived demand, the CAA considers that in making decisions as to whether to switch or discontinue a service in response to a price rise at an airport, an airline could be expected to have taken account of the likely behaviour of their passengers in the downstream market and in particular their willingness to use that other airport. The CAA considers that it is possible to assume, therefore, that passengers' propensity to switch in response to a price rise by the airport operator has to some extent been internalised in the airline's decision-making process. Consequently, where an airline's decision-making process in this respect is supported with primary evidence, e.g. an analysis of catchment overlaps developed for airports' and airlines' internal purposes, the CAA has attached weight to that evidence when delineating the boundaries of the geographic market. The CAA has complemented such evidence with interviews with a number of airlines and airport operators.

4.55 The CAA notes, however, that airlines' propensity to switch may not be fully aligned with that of passengers, as they face different switching costs and constraints. Further, relying solely on existing airlines' views and evidence may provide too static a view of the market. The CAA has therefore complemented airline and airport evidence with findings from its own research and analysis of passenger behaviour.

4.56 That said, analysis in the Initial Views regarding the cost structure of airlines suggested that for LCC the airport charges (in a general sense as charges levied by the airport operator on the airlines) make up around 30 per cent of their cost base. For long-haul carriers, airport charges account for around 10 per cent of their cost base. This suggests that a 5-10 per cent increase in airport charges to the airline if passed on fully to passengers may only translate, at most (in the case of LCC), into a 3 per cent increase in charges to the passenger. Passenger responses to an airport SSNIP are therefore likely to be muted. If we consider passengers' use of airports in the wider decision-making process of air transportation services whether for business or leisure, the

impact of airport pricing on passengers is likely to be significantly lessened as it forms one component of a bundle of goods.

The above reveals the CAA's uncertainty as to how to assess the geographic market. In particular, it is not clear whether it is passengers' or airlines' switching that defines the relevant market. While it is true that airlines will consider the characteristics of their passengers, it is simplistic to assume that the airlines' reaction simply reflects passengers' reactions.

The above quotation acknowledges that the airline's reactions "may not be fully aligned" with those of passengers. Indeed, it is not a matter of alignment but the fact that the substitution possibilities available to airlines are different from those available to passengers. The CAA's analysis vacillates between treating passenger and airline switching as paramount.

CAA's Derived Demand Approach

Given its dismissal of a multi-sided framework, the CAA frames the relationship between airlines and passengers as a vertical one, where the demand for airport services 'derives' from that of passengers for flights. Even ignoring the issues set out above regarding the CAA's dismissal of a multi-sided market framework, we have concerns about the vertical derived demand approach used by the CAA.

The vertical derived demand approach characterises the relationship between airport, airlines and passengers as successive but separate vertical relationships, or a supply chain consisting of successive and related functional markets.

Yet the CAA's Guidance and the SMPA do not clearly recognise that there is a functional dimension to market definition. This failure, which has to be said is typical of competition authorities' approach, leads to a confused, discursive and often highly ambiguous discussion and treatment of the importance and impact of passenger and airport switching on the ability to raise airport charges.

The issue at hand is whether a specific airport can impose a SSNIP of 5% or 10% on airlines. Typically this would be assessed at the same functional market where the SSNIP is imposed, and the question would be: would airlines switch in response to make such a SSNIP unprofitable for the airport? Assuming that the airlines are driven by yield calculations and can switch aircraft fairly easily, the analysis of the SSNIP would be based on the impact of the charge increase on the relative yields or what the CAA has called the Charge Elasticity of Demand (CED).

The impact on airline yield will in part be determined by the market price elasticity of demand (PED) for passenger travel. This is derived from a downstream functional market, in this case the

provision of retail passenger air services by airlines. That is the reaction of indirect purchasers of airport services. Generally, the larger the PED the higher the CED, and the less likely that the airline will be able to pass-on the full SSNIP.

However, pass-on is not solely determined by the PED, but also by market structure. If the airline market is competitive, the charges will be fully passed on, since competitive pressures will maintain margins at the competitive level by reducing output (and therefore capacity). However, the airlines will not be indifferent even with full pass on because the SSNIP will have an output effect (reduction in passenger numbers) which will lower aggregate gross margins from flying via the airport(s) in question, and lead to a substitution effect in the upstream (airport) market.

In the more general case where the airline may have to absorb part of the SSNIP in reduced yields, it will have substitution options by one or several actions – reducing the frequency of flights, reducing its capacity at the airport, or in the extreme case quitting the airport. The airline is in a similar position to a manufacturer who has the ability to substitute different inputs in response to a relative price increase of one of its inputs. Its switching will be determined by the price and the elasticity of substitution. Thus in the general case the substitution options available to the airline will be different from those available to passengers and must be taken into account.

We agree with the CAA that one determinant of switching is the proportion of airport charges to total costs. However, this has its limitations. In a simplified case there is an arithmetical relationship between the CED and PED. Briefly if airport costs are 30% of total costs/fares, then the CED is 30% of the PED. Similarly, if airport charges are 30% total costs/fare, then a 10% SSNIP will increase passenger fares by 3% if fully passed on.

This suggests that input suppliers' market power is negatively correlated with the proportion of unit input cost to price. Clearly this arithmetic relationship cannot be correct since it would imply that all suppliers of inputs constituting a small proportion of total production costs would have market power, and more appositely constitute a separate product market. This is easily illustrated by the fact that the cost of beans in a baked bean tin is low does not give baked bean growers market power. Clearly the ability of the single supplier depends on the supply elasticity/conditions, not simply the ratio of input cost to price.

Critical Loss and PED analysis

The CAA (SMPA, annexes 2 and 3, para 4.109 and 4.110) uses critical loss analysis (CLA) and estimates of market price elasticity of demand (PED) to make statements about market definition. The CAA concludes, based on this quantitative exercise, that the geographic market is actually much narrower than the Stansted area, and confined to Stansted airport alone:

4.109 ... The CAA's evidence suggests that for an airport to be able to profitably raise prices it would need to face a PED of less than 0.7.

4.110 The CAA's review of the evidence on this for Stansted suggests that Stansted faces a passenger base with an elasticity of demand of 0.2 to 0.6. This suggests that, given the substitution possibilities available to Stansted's customer base, Stansted would be able to sustain profitably a SSNIP. The CAA considers that it strengthens the argument for a Stansted-focused geographical definition.

CLA is a simple technique which looks at the decrease in passenger numbers or aircraft withdrawals which would be necessary to make a 5% or 10% increase in airport charges unprofitable for the airport. The critical loss uses information on margins and prices to estimate what is in effect a break-even condition so that losses below or above the critical loss indicate the ability to raise price further or not, respectively. This is then compared to estimates of the loss that would most likely occur to assist in defining the relevant market. If the hypothetical monopolist of the set of airports can raise its charges with a loss of passengers less than the critical loss, then that set of airports constitutes the relevant market; if the estimated loss in passengers is greater than the critical loss, it is evidence in favour of a wider relevant market.

The CAA's description of its approach to CLA is opaque. We have therefore replicated the CAA's calculations to enable further analysis.

The CAA states (SMPA, Annex 2, para 1.1) that "[t]he analysis does not examine a change in overall revenues as the CAA has not yet analysed in detail whether Stansted Airport Limited (STAL) has substantial market power in relation to its commercial revenue". Notwithstanding this comment, the CAA's CLA calculations do in fact take account of non-aeronautical revenues. It assumes that 74% of non-aeronautical revenues are proportional to the number of passengers handled by Stansted. The CAA makes two other assumptions:

1. That Stansted will achieve cost savings as passenger numbers decline. This is based on an "operating cost elasticity of demand" of either 0.5 or 0.3 which translate into an operating cost saving per passenger of £3.97 and £2.38 (our calculations) respectively. These figures are taken from a Steer Davies Gleave report and a Competition Commission report²⁹ respectively. They are higher than used in the past.
2. That increased charges are fully passed on to passengers.

²⁹ Competition Commission, *Stansted Airport Ltd: Q5 price control review*, Annex 5 of Appendix H.

Based on these assumptions, the CAA calculates that a 5% SSNIP would increase aeronautical revenue by £6m assuming no change in passenger numbers. To offset this increase, the airlines using Stansted would have to lose around 0.8m passengers (assuming a 0.5 operating cost elasticity of demand). The effect of passengers' switching is effectively three-fold, although not all of these effects are clearly stated or acknowledged by the CAA. Each lost passenger implies a:

1. £4.49 loss in non-aeronautical revenue, i.e. 74% of the current non-aeronautical revenue per passenger;
2. £3.97 saving in operating costs; and
3. £7.04 decline in aeronautical revenue.

We understand that revenue from cargo activity is not included in the CAA's calculations. This leads to an overestimate of the critical loss. Any decrease in cargo activity due to an increase in charges is in fact excluded from the critical loss.

It appears also that the CAA assumes that aeronautical revenue is dependent entirely on passenger numbers by (we believe) assuming a constant load factor. In a separate section, the CAA also quantifies a CLA in terms of aircraft withdrawal estimating this to be between 2 and 5 aircraft depending on the assumptions made.

The CAA also expresses its findings in elasticity terms. It calculates critical CEDs as the ratio between the critical percentage decrease in quantity over the percentage price increase (SMPA, Annex 2, Table 3). This gives elasticity values above which the charge increase would be unprofitable. We reproduce the CAA's results in Table 3.2 below, based on our replication of the CAA's model and calculations.

Table 3.2 – CAA's Critical Loss Analysis

SSNIP	Operating cost saving	Critical loss (ppa)	Critical CED
5%	£2.38	654,030	-0.73
5%	£3.97	791,352	-0.89
10%	£2.38	1,261,820	-0.71
10%	£3.97	1,515,505	-0.85

Based on the assumption of an airport charge/fare ratio of 10%, the CAA takes estimates of PEDs and converts them into estimated CEDs for Stansted (SMPA, Annex 3). The latter are then compared to critical CEDs to give an indication of whether Stansted could profitably impose a SSNIP on the airlines.

The CAA's estimated CEDs range from -0.2 to -0.6 which are all below the critical elasticities for both a 5% and 10% SSNIP. From this the CAA concludes that the decrease in passengers' numbers is likely to be below the critical threshold implying that Stansted could profitably increase its charges, and hence supports "the argument for a Stansted-focused geographical definition" (SMPA, para 4.110).

However, we have serious concerns about the assumptions used to estimate critical losses. These relate to the costs/fare ratio, and the "prices" and margins used.

Airport charge/fare ratio sensitivity

The CAA appears to use a very low airport charge/fare ratio which is not in line with the characteristic cost structure of LCCs. This has a direct effect on the estimated elasticity that the CAA uses. The CAA estimates the CED by multiplying estimates of the PED by the ratio of airport charges and airfares. It assumes that this ratio is 10%, so the CED is equal to $0.1 * PED$. For the present purpose, we accept that this way of calculating the CED.

However, we are not convinced that the airport charge to airfare ratio is as low as 10%. Elsewhere, the CAA's (SMPA, para 4.56) states that airport charges/costs represent around 30% of airlines' costs. The CAA's Initial Views (para 2.70) states that "airport-related costs account for about 30 per cent for easyJet". While we accept that these figures are in terms of airlines' costs and not airfares, the 10% figure still seems low.

Our concern is confirmed by a review of Ryanair's and easyJet's financial statements. Ryanair's *Financial Report 2012* states that revenues from scheduled flights were €3,438.7m and airport handling charges were €554m. This implies airport charges represented 16.1% of airfare revenues. Ryanair's³⁰ average airfare across its network (inclusive of baggage charges) in 2012 was €45 or £36.74³¹ which also gives an airfare/cost ratio of 16.3%³² (higher if we exclude baggage charges). easyJet's 2011 Financial Report states that ground operations costs were £955m, and seat

³⁰ Ryanair's presentation to investors available at http://www.ryanair.com/doc/investor/present/quarter4_2012.pdf.

³¹ Using the average exchange rate over the period from 26 April 2012 to 26 April 2013.

³² Using an airport charge of £6 which is the same as the CAA.

revenues £3,794m giving a ratio of 25.2%. These figures are substantially higher than those assumed by the CAA.³³ Indeed, the CAA seems aware that its estimate may be too low:

10 per cent is a rough estimate achieved by dividing an approximate airport charge of £6 by an approximate average one-way fare (based on International Passenger Survey data) of £60. In section 5, the CAA examined airline financial data and computed the share of airport-related charges of airlines' costs bases. The results will be different, given the inevitable differences in coverage (e.g. non-aeronautical costs, air navigation, etc.). Even with airport costs up to 25 per cent of the airfare, the CED would be less than 0.5.³⁴

Given the uncertainty surrounding the airport charge/airfare ratio, the CAA should have undertaken sensitivity analysis to check the robustness of this aspect of its analysis. Indeed, the size of the charge/airfare ratio has a significant impact on the CED. Specifically, the lower the charge/airfare ratio the more likely that the market will be defined narrowly. This is outlined in Table 3.3 below. This lists the PED estimates (Col. 1) which range between 2 and 6. By taking the 10% of the PED, CEDs are between 0.2 and 0.6 (Col. 3). But if it is assumed that the charges/fare ratios are instead higher at 20% or 25% (Cols 3 & 4 respectively) the CEDs are progressively much higher – ranging between 0.4 and 1.5 – with the result that the CLA mostly indicates that Stansted could NOT profitably raise its charges.

Table 3.3 – Sensitivity analysis on charge/fare ratio

Study	PED	Estimated CED (10%)	Estimated CED (20%)	Estimated CED (25%)
Frontier	3	0.30	0.60	0.75
	4	0.40	0.80	1.00
CAA	5	0.45	0.90	1.13
	6	0.60	1.20	1.50
Passenger Survey (CAA)	2	0.20	0.40	0.50

³³ The CAA reports that Ryanair's and easyJet's joint market share at Stansted is 90% (68% and 22% respectively). If we take an average of the airport charge ratio (using market shares as weights), we obtain a ratio of 18.1%.

³⁴ SMPA, Annex 3, n. 9.

Operating Cost Elasticity Sensitivity

The CLA estimates will also be sensitive to assumptions about an airport's operating cost elasticity. These will invariably be somewhat arbitrary. The operating cost elasticity of demand used in the SMPA is 0.3 and 0.5 which were taken from those estimated by the Competition Commission and a Steer Davies Gleave study respectively. These estimates were derived from data for six and ten UK airports of different scale, and are not specific to Stansted. They are also larger than used by the CAA in its CLA calculated in 2006 to support its Stansted de-designation advice which we infer was around 0.194 (or a £1.54 saving per passenger).

In Table 3.4 we illustrate the impact of lower operating costs elasticities for 5% and 10% SSNIPs. This shows that if the lower cost elasticity used in the CAA's Stansted de-designation advice is used the critical elasticity is considerably lower, and the less likely that Stansted will be able to profitably raise price (all other things equal).

Table 3.4 – Sensitivity analysis on operating cost saving

Operating cost saving (£)	SSNIP	Critical loss (ppa)	Critical CED
2.38	5%	654,030	0.73
2.38	10%	1,261,820	0.71
3.97	5%	791,352	0.89
3.97	10%	1,515,505	0.85
1.54	5%	598,946	0.67
1.54	10%	1,158,995	0.65

More importantly, if one considers Tables 3.3 and 3.4 together, they allow us to see the impact of simultaneously changing the charges/fare and operating cost elasticity. For Stansted to profit from a SSNIP, the estimated CEDs (cols 3 to 5 of Table 3.3) need to be below the critical CED (col. 4 of Table 3.4). In Table 3.3 we have marked in grey the CED estimates that are above the critical CEDs. Specifically, the darker grey indicates where it would be always unprofitable for Stansted to raise its charge, regardless of the specific critical CED used; the lighter grey indicates that a SSNIP would be unprofitable in four out of six cases.

Overall, it is less clear whether Stansted can profitably raise its charges. The CAA's calculations are highly sensitive to changes in the underlying assumptions, and at the very least it cannot be said that it is more likely than not (to use the civil standard of proof) that Stansted can profitably impose a SSNIP.

Ryanair's and easyJet's statements

We are able to do another set of CLA calculations based on Ryanair's indicated actions as reported to the London Stock Exchange. These support the view that Stansted is unlikely to profitably impose a SSNIP.

From public news releases by LCCs through the London Stock Exchange online news feed – described as a “communications channel for companies to communicate with the professional investor” – we have found examples which show that LCCs are sensitive to increases in airport charges. In the last year (beginning April 2012) we found four news items of LCCs reducing capacity in response to an increased charge by an airport operator:

- On 20th June 2012, easyJet said that it would cease to use Madrid as a base “due to a combination of over capacity in the Spanish airline market, leading to low revenue per passenger, combined with high airport charges which have more than doubled in the last two years and will be subject to further above inflation increases in the coming years”.³⁵
- On 24th April 2012, Ryanair stated that there had been a decline of passenger numbers of 204,000 at Alicante airport over five months (compared with the same months of the previous year) due to Ryanair's withdrawal of capacity following a dispute with the airport operator over the airport's “high charges”.³⁶
- On 22nd November 2012, Ryanair announced that starting from 10th January 2013 it would reduce the number of aircraft based at Budapest from 5 to 3 “after the Hochtief-run airport increased charges, refused to provide efficient facilities and failed to offer a competitive cost base for future growth offered by Ryanair”.³⁷
- On 28th February 2013, Ryanair issued a statement to the investors that following a 6% charge increase at Stansted it would be cutting 9% of its traffic in 2013, from 12.5m to 11.4m passengers. Ryanair stated:

³⁵ See <http://www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=11239880>

³⁶ See <http://www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=11184862>

³⁷ See <http://www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=11405605>

“Ryanair, which had planned to grow its Stansted traffic by 5% from April 2013, will now cut frequencies on 43 of its routes and reduce its weekly operations by over 170 flights, with the loss of 1.1m passengers (-9%) and over 1,100 jobs at Stansted, in direct response to this unwarranted and unjustified 6% price hike.”³⁸

It is the last statement by Ryanair which is of particular interest and warrants further analysis, as it was made after the publication of the SMPA.

A 6% charge increase is in line with a 5-10% SSNIP test. Using the CAA’s own assumptions, we can re-calculate the CLA for the 6% price increase (Table 3.5).

Table 3.5 – CLA for a 6% price increase based on CAA assumptions

Operating cost saving	Critical loss (ppa)	% decrease	Aircraft withdrawal (CAA)	Aircraft withdrawal (RBB)
£2.38	779,126	4.37%	2.60	1.95
£3.97	941,275	5.27%	3.14	2.35

In order to make a 6% airport charge increase unprofitable Stansted would need to lose between 779k and 941k passengers, equivalent to the withdrawal of 2 to 3 aircrafts. Ryanair claims that its planned capacity withdrawal would lead to the loss of 1.1m passengers, more than enough to make Stansted’s increase unprofitable – bearing in mind that this is only Ryanair’s response, to which other airlines’ responses would need to be added.

As a robustness check on the figure provided by Ryanair, we used RBB’s (consultants to Ryanair) and CAA’s assumptions to estimate the capacity that Ryanair would need to withdraw to deliver such a decrease in passenger numbers. Since each aircraft based at Stansted carries on average 300,000 (CAA’s assumption) and 400,000 (RBB’s assumption) passengers per year, a reduction of 1.1m passengers implies 3.67 and 2.75 aircraft withdrawals respectively out of 25 aircrafts based at Stansted³⁹. On the assumption that an aircraft at Stansted does 2,190⁴⁰ ATMs per year, and

³⁸ See <http://www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=11504116>

³⁹ This figure refers to 2011, as per the RBB report submitted to the CAA. Therefore it may be not up to date.

⁴⁰ Based on 6 ATMs per based aircraft per day (CAA assumption), multiplied by 365.

carries an average of 155 passengers per flight⁴¹, those aircraft withdrawals imply a loss of respectively 933,487 and 1,244,650 passengers.

Without having to rely on possibly imprecise third-party elasticity estimates, our analysis – drawing on the CAA’s CLA and Ryanair’s statement to the London Stock Exchange – shows that it was not profitable for Stansted to raise charges above their level of February 2013 – which presumably is the same level of charges as the CAA’s analysis, i.e. around £6.

However, Ryanair’s response suggests that the CED faced by Stansted is substantially higher than estimated by the CAA. This can be estimated based on several assumptions.

Ryanair states that absent the charge increase its passenger volumes would have increased about 5% at Stansted but will be reduced by 9% giving a 13.1% decrease from the present 13.125m passengers. This implies that Stansted faces a charge elasticity of demand of 2.18. Although based on different assumptions, this value can be compared to the estimates of CED provided by the CAA and ranging between 0.2 and 0.6 – well below our estimate of 2.18.

We are aware that our elasticity estimate is somewhat crude. First, we do not have exact information on the price level prevailing at time of the 6% charge increase. Second, it is based on Ryanair’s response only, i.e. it assumes that the remaining 22% of traffic at Stansted behaves in the same manner as Ryanair’s. However, we are confident that overall the elasticity faced by Stansted for passengers services is above unity.

This means that Stansted is not able to profitably raise its charges.

Other Issues

Veracity of PED

The SMPA (Annex 3) provides estimates of Stansted’s PED ranging from 2 to 6 drawn from three different studies (Table 3.6 below) – Frontier (consultants to easyJet), the CAA, and derived from the CAA’s Passenger Survey.

⁴¹ CAA assumption based on an 82% load factor and a seat capacity of 189.

Table 3.6 – Price elasticity estimates for Stansted

Study	PED
Frontier 2011	3-4
CAA	4.5-6
Passenger Survey	2

Frontier's and CAA's elasticity estimates come from simulations in the DfT NAPALM model. We do not have access to this model and therefore cannot evaluate it. However, on the basis of the CAA's and Frontier descriptions and other publicly available information, we are able to make some observations.

We understand that the NAPALM model has been designed to allocate forecast growth in air travel across UK airports, taking into account *inter alia* capacity constraints. To gain an insight on Stansted's passengers' elasticity, the simulations assume an increase in the cost of surface access to Stansted, i.e. the time and monetary costs of reaching the airport from a given location in the UK. Therefore its simulations are not based on the airfare elasticity of demand but potential passenger total transport costs elasticity derived from survey data.

We gather that the data that feeds the econometric model comes from CAA survey on passengers' stated preferences, and thus do not reflect actual switching behaviour. In addition, these surveys were carried out between 2000 and 2008, when BAA jointly owned Stansted, Heathrow and Gatwick.

Ignoring the appropriateness of this data and its accuracy, the use of historical data raises a number of *a priori* issues surrounding the PED estimates that have been used (or could reasonably be used) in defining markets:

1. If passenger prices were below the competitive PED, the estimated elasticity would be lower than the competitive elasticity all things equal.
2. If prices altered significantly over the period of the estimation, PED would be an average of the actual PEDs and also underestimate the competitive PED.
3. On the other hand, joint ownership would suggest (as is the case) limited competition between Stansted and Heathrow and Gatwick by segmenting Stansted to more price sensitive passengers. Thus the actual PED would be more elastic for any given price than the competitive PED.

Thus 1 and 2 result in an underestimate of the competitive PED and 3 possibly in an overestimate of the competitive PED. The direction of the bias therefore depends on relative magnitude of these two opposing effects.

As regards the individual studies, we also have some reservations over their accuracy.

The Frontier study is based on the Department for Transport (DfT) aviation forecasting model. It calculates the impact of a 10% charge increase at Stansted, given a starting charge of £6.60. Following the charge increase, 0.69m passengers switch away from Stansted, implying a PED of 3-4. These lost passengers would choose to fly from Gatwick (43%), Luton (16%), Heathrow (3%), London City (22%), and out of London (14%)⁴².

However, we share CAA's concerns over this model, and in particular the assumption that "a price increase at an airport only generates passenger switching to other alternatives, rather than passengers choosing not to fly", and the fact that it limits substitution possibilities of passengers to other LCCs (SMPA, Annex 3, para 1.16). We also note that Southend does not appear among the substitute airports, which seems at odds with recent trends in the London area⁴³. All of these shortcomings work to produce a low PED for Stansted.

CAA's model shows that "Stansted would lose would lose 10 per cent of its passengers if it is £1 more expensive to use Stansted from 2014 onwards" (SMPA, Annex 3, para 1.18). Again, we believe that the assumptions used underestimates passengers' reaction. Being based on the DfT model, it has the same drawback as the Frontier model – as the CAA itself recognises (SMPA, Annex 3, para 1.21).

The passenger survey undertaken by the CAA reveals that 17% of Stansted passengers would switch away from the airport if the airport charge rose by £5, implying a PED of around 2. The usual concerns over surveys apply here (and particularly their suitability to obtain an estimate of elasticity), along with reservations on the small sample size.

⁴² The sum is not 100% because of rounding errors.

⁴³ Passengers at Southend have increased from 42,439 in 2011 to 616,974 in 2012, following easyjet's switch.

Passengers switching

Apart from the CLA, most of the CAA's evidence is around travel isochrones and passenger preference survey evidence. This exclusively relates to UK based passengers, i.e. those who start their journey from Stansted. However, a substantial volume of passengers carried by Stansted based LCCs begin their journey from outside the UK. The SMPA undertakes no analysis of the preferences and responsiveness of this sizeable group, which could be highly significant in any passenger reaction to a SSNIP and price increases generally.

According to CAA survey data (Table 3.7) foreign originated passengers constitute 42.1% of all passengers in 2011 at Stansted⁴⁴.

Table 3.7 – Stansted's passengers by journey purpose and country of residence

	Country of residence		Total	
	UK	Foreign		
Journey purpose				
	<i>International Business</i>	6.2%	6.2%	12.4%
	<i>International Leisure</i>	44.4%	35.1%	79.5%
	<i>Domestic Business</i>	3.1%	0.2%	3.3%
	<i>Domestic Leisure</i>	4.2%	0.6%	4.8%
	Total	57.9%	42.1%	100.0%

In addition, the large majority of these state leisure as the purpose of their journey to the UK. We gather from another source that in-bound tourists are estimated at around 14.3% of Stansted's total passengers⁴⁵. Arguably, these travellers – whose presence is important to Stansted's profitability – will be more flexible than the rest of Stansted's users, and therefore more ready to switch to an alternative airport or holiday destination (say Paris or Rome). This will significantly constrain the airport's behaviour.

⁴⁴ Data collected by the CAA refers to residency and not origin. We assume that UK residents' traffic is equal to traffic originating in the UK.

⁴⁵ David Starkie, "Market definition and market power in the airport sector: competition from outside the relevant market", *Letters and Notes on Regulation*, No. 11, Regulatory Policy Institute, December 2011.

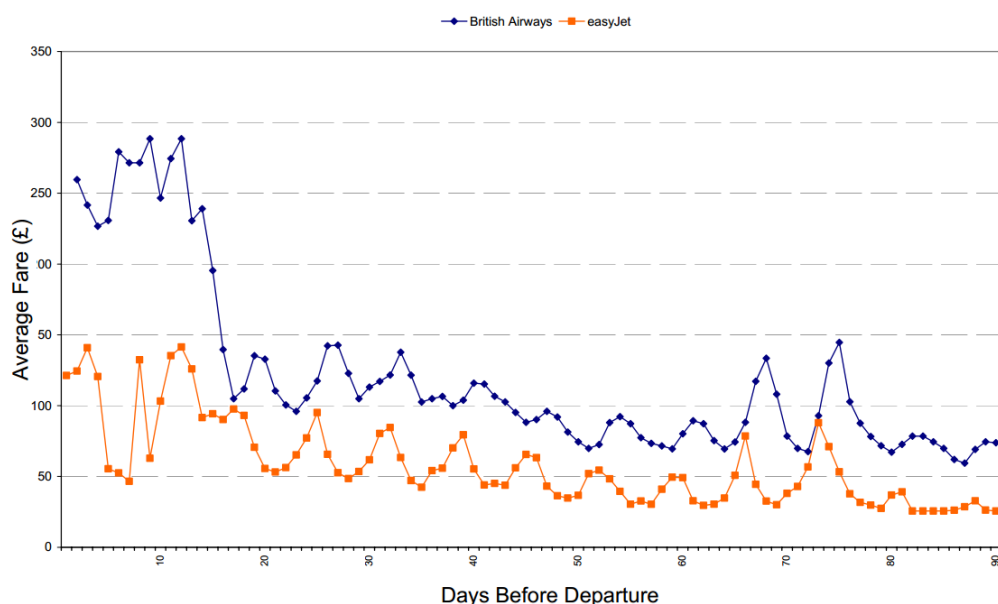
To this we add that airports do not have any scope for price discrimination to target this segment of demand with lower charges. The strength of this competitive constraint is further amplified by this inability.

Average versus Marginal Prices and Yields

The propensity of passengers and airlines to switch in response to a SSNIP is based on aggregate market behaviour and determined by the marginal consumers' reaction to changes in the marginal prices. Thus it is not appropriate to infer the elasticity or response from a comparison of average prices or yields (the latter calculated by dividing total fare revenues by passengers or passenger) across flights. It is not clear whether the PED estimates used to calculate critical loss are statistical estimates based on historical data or simulated estimates inferred from passenger surveys and DfT forecasting models. If however the estimates are done on some aggregate average fare, they would not reflect the prices facing marginal passengers (and if average yields are used likewise for marginal routes, capacity and airports).

Figure 3.2 – Relationship between airfare and day of booking (easyJet)

We offer significantly lower fares on Gatwick-Malaga which we advertise vigorously



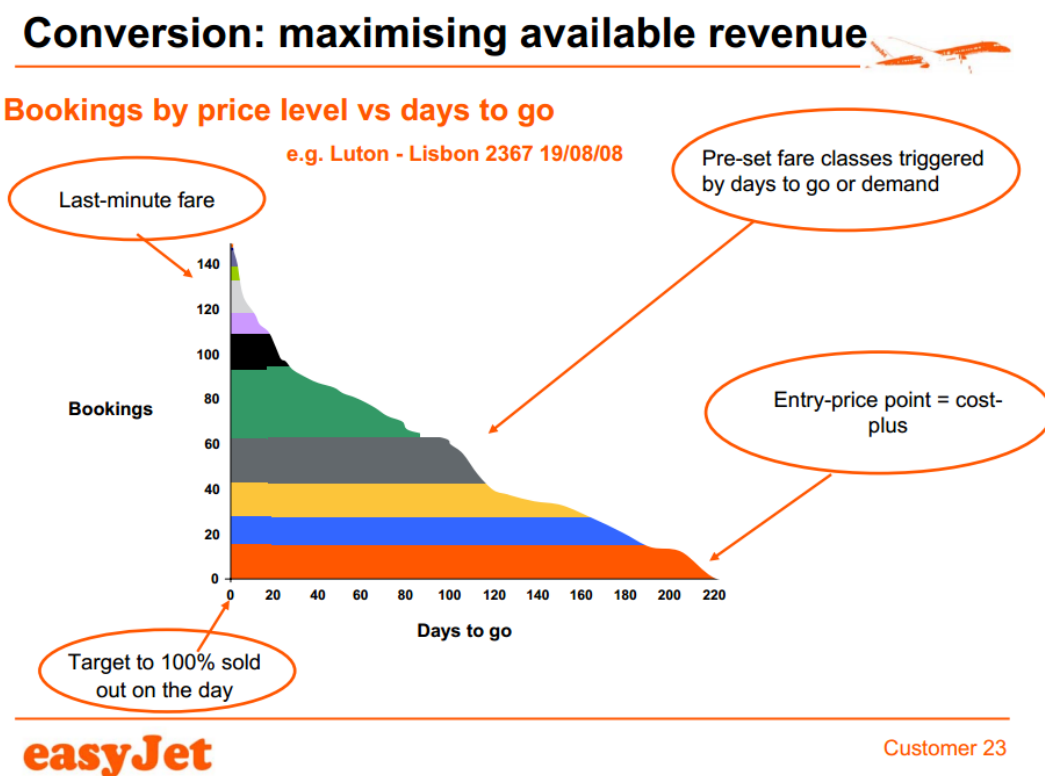
Source: Slide 108 of presentation "Investor Day", 17 September 2008. Available at http://corporate.easyjet.com/~/_/media/Files/E/Easyjet-Plc-V2/pdf/investors/presentations/analyst_and_investor_day_2008.pdf

These averages combine fares and yields on very different routes and for very different customers on these routes. They overlook, for example, the fact that LCCs and other airlines engage in

dynamic pricing, where the fare for early booking is lower than that purchased closer the departure time. This is a form of second-degree price discrimination, with each ticket selling at a different price, and a large number of marginal purchasers suggesting fare elasticity close to unity.

This price discrimination is also aimed at maximising load factors. For each flight, LCCs typically build a critical mass of passengers around low fares – arguably targeting more price sensitive passengers. As the flight date approaches and the load factor for the flight increases, the fare increases exponentially – targeting a different set of passengers. Hence for any given flight there is a core of low-margin passengers ensuring a high load factor, and a lower number of late-booking passengers representing a much higher proportion of the revenue per flight, as shown in Figure 3.3 – in which, *inter alia*, it is stated that different “pre-set fare classes [are] triggered by days to go or demand”.

Figure 3.3 – Price discrimination by easyJet



If we assume that an increase in airport charges is fully passed on to passengers through higher airfares, it is clear that the effect of a higher airport charge is not uniform across passengers. Instead, it affects more precisely the type of passengers that are more price-sensitive (those which easyJet refers to as “cost-plus” bookings in Figure 3.3 above), impairing LCCs’ ability to build volumes. Hence, when the CAA uses, for instance, an average charge/fare ratio it is underestimating LCCs’ sensitivity to an increase in airport charges.

Given the nature of LCC operations one can confidently say that marginal fares and yields are much lower than average (aggregated) fares and yields, and differ significantly by route. These will have a greater elasticity and be more responsive to a SSNIP. Since the CAA's analysis and the submissions from the LCCs use average yields and fares, their conclusions systematically underestimate the price responsiveness of Stansted's users.

E. EUROPEAN MARKET

The CAA accepts that LCC's business model gives LCCs the flexibility to switch between some 200 airports across Europe. While accepting in its Initial Views that this suggested a European-wide market, the CAA rejects this now. The CAA states that its Initial Views gave insufficient weight to the costs and strategic implications of LCCs, and to passenger switching (SMPA, para 4.123).

Reasons for CAA's Changed Position

The basis for the CAA's altered view is two-fold.

The first is Ryanair's statement that passengers that fly from a UK airport would not decide to fly from, say, an Italian airport. Clearly this is not economics. The issue is not whether someone in Birmingham can relocate to Rome in response to a SSNIP; it is whether a SSNIP leads marginal passengers to switch. For example, if airport charges are fully passed on, marginal passengers across the airports that Ryanair flies to from Stansted could switch to flights to UK airports other than Stansted or elsewhere. The passenger response here, if significant, would place Stansted in a wide geographic market. Whether this is the case has been left unanalysed and unfortunately the CAA has relied on glib statements by an interested party, rather than serious economic analysis.

The second reason given is "strategic constraints" (see below for a fuller discussion). This is the claim that a presence in London is important to LCCs. This, together with capacity and other constraints at alternative London airports, delimit the market to the Stansted area.

At a factual level we are presented with two very different business models and patterns of commercial behaviour. The first is a model of airport fixity portrayed in the submissions of those using Stansted; the second is the commercial reality of the LCC business model observable in the marketplace. The CAA (SMPA, para 4.124) acknowledges that the LCC business model is pan-European:

4.124 Although the CAA does not consider that the market should be widened to include European airports it does recognise that the LCC business model, which dominates at Stansted does operate

a pan-European network. The network yield optimisation of these carriers involves a degree of switching assets between differing markets across Europe. This ability to yield manage across a range of markets is likely to provide some degree of constraint on airport pricing. However, when moving capacity from Stansted to a European airport, more so than to a neighbouring UK airport, the airline will be giving up on its competitive position at Stansted and the customers it serves. The likely revenue loss to the airline of a sufficient pan-European switch of capacity from Stansted is likely to exceed the impact of a 5-10 per cent increase in airport charges.

However, this critical paragraph is based on a bald assertion and not any analysis or supporting evidence. The claim that by switching, an “airline will be giving up on its competitive position at Stansted and the customers it serves” has no significance for market definition. The claim that a reduction in yield would not be sufficient to switch is totally unsupported.

The best that can be said is that the CAA has failed to make a case in relation to the geographic market.

Airline Switching

The hallmark of LCCs is the flexibility of their operations. Their business model entails operating point-to-point routes mainly from/to secondary airports, e.g. Rome Ciampino or Brussels Charleroi. They establish bases at these airports, taking advantage of their lower charges and faster turnaround times which allow them to undercut competitors on airfares and utilise efficiently their fleet. Airports across Europe have and do compete fiercely with each other to secure LCC business through the development of dedicated facilities, heavily discounted charges and even subsidies.

LCCs have expanded rapidly based on this lower cost base. Ryanair, described as the most “footloose airline in Europe”, increased its fleet from 114 aircrafts in 2007 to 305, and has shown a remarkable willingness to switch bases and to alter its routes. It has been estimated that 50% to 60% of Ryanair routes in any given year are new routes which were not in existence in the previous year⁴⁶. Closing airport bases is a frequent commercial decision. A prominent example is Ryanair’s closure of its Valencia base in 2008 due to disagreement over local marketing funds. When the local tourism minister promised to provide marketing support to Ryanair in 2010,

⁴⁶ Copenhagen Economics, *Airport Competition in Europe*, Report commission for ACI Europe, 2012.

Ryanair reopened a base at Valencia. Another example is easyJet's exit from Dortmund in 2008 only four years after locating there.⁴⁷

LCCs have also been willing to re-allocate aircrafts across their various bases. In response to a UK aviation tax of £11 per outgoing passenger in winter 2010, Ryanair decreased its UK flights by 16%, and claimed that it would "switch these London based aircraft to other European bases where governments have scrapped tourist taxes and reduced passenger charges"⁴⁸. This flexibility is core to the operations of LCCs⁴⁹:

"It is central to our philosophy of flexibility [...] that we have the right to move aircraft around between bases, we have the right to move people around between bases, and we will continue to do so" (Ryanair CEO Michael O'Leary)

"One of easyJet's strengths is its flexibility in asset allocation; we can and do move aircraft around our network to ensure we are generating the best possible return on our investments"
(easyJet Annual Report 2009)

"Base location is constantly under review. For example, we have increased the number of aircraft based in Italy from three to 16 since 2006 and in France from 11 to 14 in the last 12 months. At the same time, we have reduced capacity at under-performing bases such as Luton"
(easyJet Annual Report 2009)

easyJet's annual reports and investor presentations stress its constant re-appraisal of underperforming routes which are closed and replaced by new routes. Its route churn in 2009 was 10 per cent. Significant under-performance has seen the closure of easyJet's operating bases, such as at Madrid, East Midlands and Dortmund airports, or the reallocation of aircraft to other base airports. easyJet has recently stated that two of the current eight aircrafts (25%) are to be moved from Liverpool to other airport bases with higher returns (March 2013 investor presentation). The general trend over the last few years has been a relative shift in LCC capacity to continental Europe in response to higher returns (see slide 29, 2011 easyJet Interim Results). EasyJet's 2009 Annual Report noted that for the first time half of easyJet's customers came from

⁴⁷ See <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a2iY22DquGLk>

⁴⁸ See <http://www.ryanair.com/en/news/ryanair-cuts-uk-winter-capacity-by-16-percent>.

⁴⁹ Quotes from Gatwick Airport, "Airport competition: Competing to grow and become London's airport of choice, An initial submission from Gatwick Airport to inform the CAA's review of airport competition", <http://www.caa.co.uk/docs/5/GatwickSubmissionOnCompetition05122011.pdf>.

outside the UK. Some of the capacity increase in Europe has been at the expense of the UK. Notably both Luton and Stansted are identified by easyJet as underperforming airport bases.

The CAA quotes the Competition Commission working paper which considers this:

Impact of Airline Competition

4.112 Another useful way to assess the potential for passenger switching across airports is to consider the extent airlines compete across airports. A 2008 working paper by the Competition Commission analysed airline yield data and found some evidence that BAA airports (Heathrow, Gatwick and Stansted) are substitutes for passengers. In that analysis the CC considered that:

“It is not possible to estimate cross-price elasticities [faced by airports] directly: historical joint-ownership has prevented competition between the airports and so we observe only a few instances of switching behaviour by airlines. This means we must look to passenger willingness to substitute between airports in response to relative airfare changes instead to guide our view on incentives for airlines to switch in response to changes in relative airport charges.” (SMPA, para 4.112)

The CAA (SMPA, para 4.115) states that it has done a yield analysis for easyJet and “tentatively concludes that there are signs of airline competition for passenger demand at and across London airports”, but that it is difficult to say from which airport the competitive constraint is more stringent. Since the yield analysis is redacted it is impossible to make any useful comments on this aspect of the SMPA.

European Airport Competition for LCCs

The other consequence of LCCs’ business model is vigorous competition among airports – especially secondary airports – for LCCs to serve and base operations there.

A 2012 report by Copenhagen Economics⁵⁰ sets out evidence of trends and features of this enhanced competition among airports:

- Participation in route development. Agreement with airlines to market specific routes, especially new routes that need to be heavily advertised in order to ‘create’ demand for them; this is accomplished by start-up rebates on charges or start-up cost reimbursement.
- Increased marketing efforts. 96% of airports surveyed market themselves to airlines, especially through the attendance of route development conferences, meetings and

⁵⁰ Available at: http://www.moodiereport.com/pdf/Copenhagen_Economics_Study_Airport_Competition_2012.pdf

presentations with airlines; further, it would appear that European airports are more active than average in marketing.

- Service competition. Offer of tailored services for LCCs, e.g. shorter turnaround time or dedicated low-cost terminals.
- Entry of new competitors. Between 1996 and 2008 the number of airports carrying out commercial activities increased by 81. The entry of Southend is an example.
- Fiercer price competition.

The competition of airports for LCCs has apparently become excessive in some instances, where it has become based on potential taxpayers' funding and public subsidy that underprice airport services. For example, the European Commission's Competition Directorate's website shows a total of 11 State Aid cases involving LCCs (Table 3.8 below), of which nine involved Ryanair, and one each for easyJet and Aer Lingus – over the period 2008-2013. These invariably concern a secondary, publicly owned airport offering subsidies to airlines and thereby illegally altering competition between airlines and airports.

Table 3.8 – State aid cases involving airport charges

Airport	Airline
Bratislava	Ryanair
Tampere-Pirkkala	Airpro and Ryanair
Frankfurt-Hahn	Ryanair
Alghero	Ryanair
Toulon – Londres	Ryanair
Charleroi	Ryanair
Västerås	Ryanair
Lübeck-Blankensee	Ryanair
Klagenfurt	Ryanair
La Rochelle	Ryanair
Altenburg Nobitz	Ryanair
Dublin	Aer Lingus and Aer Arann
Dortmund	easyJet

F. STRATEGIC CONSTRAINTS

The CAA says that the reasons why a Stansted-based LCC will find it difficult to switch are given by barriers to entry, thereby ruling out the existence of a Europe-wide market. These are not the

type commonly discussed of high set up or exit costs based on substantial sunk capital costs, but a softer variety which the CAA calls “strategic constraints”. The CAA defines these as follows:

5.56 In a report commissioned by Ryanair, RBB set out reasons why a strong presence in London is important to the airline:

- a strong presence in London affects the brand value of an airline;
- the thickness of demand in London allows a large number of routes to be operated from the same base, which results in efficient aircraft utilisation;
- new routes can be launched with lower risk, in regard to profitability, from London airports rather than from non-London airports; and
- significant sunk costs in marketing its London bases. There is a significant option value to a London presence associated with the ability to operate from London in the future.

The CAA concludes that:

... the evidence suggests that strategic constraints can be an important factor in an airline’s decision to switch away marginal aircraft from one airport to another, whether considering switching between Stansted and another London or UK airport, or an airport in continental Europe (SMPA, para 5.74).

The first thing to note is that the notion of “strategic constraints” is derived from Ryanair’s consultants for the purposes of the present consultation.

Our principal criticism of this concept is that it is irrelevant to defining the geographic market. The issues referred to seem a Macedonian salad of factors that a strategy adviser would identify for a marketing campaign. They do not address what would happen in response to a SSNIP, and they certainly do not explain the substantial reduction in Ryanair’s services from Stansted which it has attributed to the recent increase in Stansted’s airport charges.

The CAA has conceded that the quantifiable switching costs for Ryanair are *de minimis*, and that Ryanair has not committed any sunk costs at Stansted. Further, the proposition that location at Stansted or another London airport is key to Ryanair’s brand image – which seems largely confined to a low fares no frill airline – is unproven. If the elements above were such a significant factor we would not expect Ryanair to either switch aircraft easily from Stansted or credibly threaten to. The notion is also at odds with the LCC business model, and Ryanair’s actions and public statements in particular. As we have seen and been told, all Ryanair’s routes and airport bases are subject to continual reappraisal in the light of costs and net yields. Should costs increase, Ryanair will – after hard negotiations and a media war – adjust its services or abandon the airport. Airport bases and flights are continuously adjustable variables which are very cost responsive.

Also, the first and the fourth factors mentioned in the quotation above concern an airline’s marketing strategy. As such, their relevance is mostly limited to the issue of the airline’s presence

in the London market. However, as explained at length, the relevant issue here is that of moving marginal capacity out of London to serve alternative airports/routes, as this would be sufficient to offset a charge increase by Stansted, and not Ryanair's complete abandonment of flights to London.

The second and third reasons essentially regard route profitability, and we would argue in light of the above that this is not a strategic matter. If following a SSNIP, airlines find that alternative routes are now marginally more profitable, they will switch marginal capacity accordingly. Indeed, route profitability does not qualify as a switching cost or more generally a constraint to switching – it is the basis and motive for switching.

IV. AIR CARGO

The CAA has provisionally concluded that Stansted has substantial market power in the supply of airport services to dedicated cargo airlines at Stansted.

The CAA's definition of the cargo market is narrower than that for passenger services: it has confined the market to Stansted airport. This contrasts with previous competition and regulatory decisions which have taken an expansive definition.

In our opinion, the CAA has failed to define the relevant product and geographic markets, confounded market definition and market power assessments by taking account of barriers to entry when discussing the former, and been over reliant on submissions of some dedicated air freighters operating out of Stansted.⁵¹

A. CAA'S POSITION

The SMPA (para 4.45-4.47) delineates a separate air cargo product market. This is based solely on the observation that air cargo requires different warehousing and handling facilities to passenger services.

⁵¹ It appears to us that the discussion in the SMPA has worked back from the discussion of competitive constraints in section 5 (para 5.159-5.179) to make comments about market definition. We have therefore considered the discussion in both sections to give a fair and overall assessment of the CAA's position and analysis.

On geographic market, the CAA alters its Initial Views from a European-wide market to a market “no wider than Stansted” and restricted to “core cargo aeronautical services provided to cargo-only airlines at Stansted”. This market is referred to as the “Stansted cargo market”.

The CAA’s provisional view is based on the following observations:

- LCCs carry very little bellyhold cargo.
- Stansted handles almost only cargo from dedicated air cargo airlines.
- In the London area, the bulk (67%) of dedicated air cargo-only movements are at Stansted (SMPA, 4.140), followed by Heathrow (17%), and Luton (12%) – with the remainder at Manston (3%), Gatwick (2%) and Southend (0.01%).

The CAA then lists reasons why air cargo operators based at Stansted viewed all other London airport as unsuitable. This consists of text summarising their submissions (SMPA, para 4.135 – 4.150) which in summary says:

- Heathrow is not suitable because of night-time flight restrictions.
- Gatwick is too distant from London and not suitable because of the night flight restrictions. Further, Gatwick has not since its divestment from BAA sought dedicated freight business, and its south London location is a disadvantage.
- London City is well-located but its runway is too short and lacks relevant cargo processing infrastructure.
- Luton’s runway is too short for fully-laden wide-bodied freighter aircraft to take-off, it is too far from London (the CAA comments that this is not the case – Luton is equidistant from London with slightly lower travel time), and faces expansion constraints. On the other hand, Luton is closer to Heathrow where the “freight forwarding community is concentrated”. “However, a combination of night flight restrictions, insufficient runway length for fully-laden wide-bodied aircraft, and problematic surface access are likely to make Luton airport unsuitable”.
- Southend is too distant from London.
- Manston (also known as Kent International) is close to London and mostly used for cargo-only. “However, several of Stansted cargo-only carriers have told the CAA that the airport is too distant from London to achieve a suitable road transit time, and that the surface

transport links are inadequate. Moreover, FedEx said this is true for non-London airports generally.”

There is some ambiguity in the market definition. In section 4 the product market is defined as all air cargo whereas elsewhere it is defined as air cargo on cargo dedicated airlines. However, the CAA is unsure about this:

18. This market was not covered in the CAA’s Initial Views document, so evidence on this market has not been tested previously by public consultation. The CAA will therefore consider carefully representations relating to this market, and will in particular consider further whether the ability of downstream customers to switch from cargo-only carriers operating from Stansted to belly-hold carriers operating from other London airports could indirectly constrain the behaviour of STAL. (SMPA, para 18)

B. PAST MARKET DEFINITIONS

Past competition decisions have treated the air cargo market as a wide market, especially for dedicated freight services where aircraft are not bound to particular routes and schedules and because the demand for freight services is generally indifferent to the route and mode of transport used. This is the position taken by the CAA in its Initial Views:

2.149 There is currently limited evidence available to the CAA on the extent of the geographic market for cargo carriers at Stansted. However, the evidence that is available appears to support the CAA’s previous view that the geographic market is likely to be at least national, with aspects that are competing in an intercontinental market.

The CAA took a similar view in its Stansted de-designation advice⁵² (para 8.60 & 8.61) that Stansted competed both with other major cargo hubs for intercontinental cargo flows as well as with other UK airports for routing of cargo through the UK:

Stansted is likely to compete with a number of cargo hubs in northern Europe, as part of these global flows of cargo between the major global regions. For example, Frankfurt, Amsterdam and Paris are the three largest cargo hubs in Europe, and all are likely to provide an alternative route for shipping cargo to the UK and for shipping cargo through Europe without going via the UK. Indeed, cargo volumes at Heathrow have recently fallen, at the same time as volumes have continued to rise at the other major European cargo hubs.

⁵² Civil Aviation Authority, *De-designation of Manchester and Stansted airports for price Control regulation - The CAA’s advice to the Secretary of State*, July 2007.

In addition to this hub-on-hub competition, some cargo flows could be redirected through other UK airports, such as East Midlands, Luton, Manston and Doncaster Sheffield, albeit that these airports might face operational constraints or additional onward shipping costs for cargo that was intended for onward transit via bellyhold from Heathrow.

The European Commission in a number of (Phase 1) airline merger⁵³ and alliance decisions defined a wide geographic market for cargo. It found that shippers had at their disposal different cost-effective choices of modal and intermodal transport services. That is, cargo to be delivered from A to B can go by direct nonstop route, indirect route using intermediate airports and aircraft, and intermodal by road, train and sometimes sea for all or part of the journey. The significance of road transport in Europe is highlighted below. As regards sea transport, in KLM/Martinair⁵⁴ the European Commission stated that “given the high fuel prices, the increased speed and reliability of ships, improvements in temperature-controlled equipment, technology and processes for ocean freight and enhanced efficiency of ocean connections with rail and truck, sea transport is increasingly becoming an economically attractive option for intercontinental cargo”.

Indeed, the European Commission has consistently dismissed a point-to-point city-pair market definition in its assessment of airline competition, because “the peculiarities of the cargo sector justify a wider definition of the relevant market”⁵⁵. In summary, the European Commission’s position is that air cargo markets are:

1. Unidirectional on each route, i.e. A to B is a separate product market to B to A.
2. Often include indirect routes, such that AB faces competitive constraints from flights routed through intermediate transit airports ACB and ADB, i.e. there is inter-hub competition for air freight services.
3. Include intermodal transport in Europe such as road and to a lesser extent rail. The important consideration is how well developed is the region's transport infrastructure.

⁵³ COMP/M.5141 - *KLM/ Martinair* (2008); COMP/M.5181 - *Delta Air Lines/ Northwest Airlines* (2008); COMP/M.5403 - *Lufthansa / BMI* (2009); COMP/M.5440 - *Lufthansa/ Austrian Airlines* (2009); COMP/M.5335 - *Lufthansa/SN AirHolding* (2009).

⁵⁴ COMP/M.5141 - *KLM/ Martinair* (2008); COMP/M.5181 - *Delta Air Lines/Northwest Airlines* (2008)

⁵⁵ COMP/JV.19 - *KLM/Alitalia* (1999) para 5.2.23.

4. Treat the 'behind and beyond' carriage of freight as a complement to the air freight segment at points of origin and destination extending the relevant geographic market.
5. As a result of factors 3 and 4, define the geographic footprint of the air cargo services market as pan-European and multi-modal as road and to a lesser extent rail place a competitive constraint on the price of air cargo services.

C. ASSESSEMENT OF CAA'S POSITION

Product Market

The SMPA contains no discussion or application of the SSNIP or any other test and price analysis to determine the relevant product market. The CAA simply defines air cargo as a separate product market.

The CAA's failure to consider intermodal and bellyhold air cargo services, and the derived demand from shippers are, in our opinion, fatal flaws.

The assumption of the CAA that air cargo is a distinct market is open to question. There is ample evidence that within the UK and Europe road freight is a substitute for air cargo, and that much air freight is carried by road instead of airplanes.

The substitution possibilities between air and road are highlighted in the Steer Davies Gleave report commissioned by the DfT - *Air Freight – Economic and Environmental Drivers and Impact, Final report*, March 2010 ("SDG Report") – which is cited in the SMPA. This shows the extent to which road haulage supports and is a substitute for air cargo services.

There are two types of road haulage supplied to the air cargo sector. One is conventional road haulage transport cargo to and from the airport at the cargo's origin and destination. The other is air freight by road, or "truck-flights", where cargo consigned to airlines is instead transported by road. As the SDG Report (para 1.20) comments:

These vehicles will often be given a flight number and the contents will remain subject to the same customs regulations as an aircraft in flight. For express freight (overnight delivery) within Europe, a threshold of 500km is generally accepted as the limit for transit by truck. Shipments requiring transit over and above this range will generally be flown.

The substitution effect (crudely speaking) can be seen from the data. The SDG Report (para 1.21) states that "[b]etween 2002 and 2007, weekly truck-flight frequencies offered by scheduled

airlines grew from 3,870 to 11,497 per week, representing a CAGR⁵⁶ of 24%"; at the same time, the volume of bellyhold cargo has fallen. Indeed, air cargo within Europe is almost all carried by road.

The quotation above has a direct bearing on the CAA's catchment analysis in the SMPA (Table 4.4). There, the CAA makes much about travel distance to delineate the geographic market. However, all London airports are well within the 500km limit for express truck flight haulage identified in the SDG Report.

The extent of the substitutability between air and road in carrying similar cargo places a competitive constraint on the air cargo industry – and hence to airport charges. While this has not been tested, the evidence above, and industry practices, suggests both a wide product market and also a wide geographical market.

Types of Cargo

There may be product market segmentation by type of cargo. This may be significant because Stansted is the hub for several integrators who freight a large proportion of express cargo in the UK.

The bulk of air cargo is "general" cargo (1.55 m tonnes, or 65% by volume in 2008), of which two-thirds is bellyhold on long-haul flights out of Heathrow to destinations outside Europe (circa 90%). The next largest is express freight (18%). The majority (62%) of express cargo is flown by the integrators and 35% travels as bellyhold in passenger aircraft.

Given the absence of bellyhold cargo at Stansted and its focus on express cargo, there may be a temptation to segment the market narrowly by types of cargo carried, namely express cargo (at Stansted). However, the data alone indicate that there is a significant overlap in the carriage of express cargo by both bellyhold passenger airlines and integrators and other dedicated airlines based at Stansted. This suggests that even if express cargo were treated as a separate product market, there is likely to be a strong competitive interaction between express cargo carried as bellyhold cargo by passenger airlines and integrators.

In the provision of cargo handling services, there are no real supply-side differences between handling dedicated and bellyhold cargo or types of cargo with the exception of livestock, fragile and precious goods, and refrigerated cargo. However these types of cargo probably cut across

⁵⁶ CAGR is the acronym for Compound Annual Growth Rate, "a method of averaging growth rate over a period of time" (SDG Report).

the different types of air cargo carriers, and do not warrant further segmentation of the product market.

We are of the opinion that:

- there is insufficient evidence to segment the cargo product market. We therefore agree with the CAA's substantive analysis in section 4 that there is one air cargo product market.
- We disagree with the CAA's unsupported claim that dedicated air cargo constitutes a separate market. The latter has not been analysed and is not proven as more likely than not.
- There is strong *prima facie* evidence that the product market is wider than air cargo and includes road haulage for the UK and across Europe.

Geographic market

The CAA has defined the geographic market on the basis of the capacity and other constraints of other London airports (see above). These constraints are not relevant to market definition.

Our position is similar to the European Commission's position that the geographic market is at least pan-European because of the complementarity and substitutability between different modes of transporting air cargo.

The European Commission defined cargo markets in terms of whether the transport infrastructure of a region or continent was sufficiently developed to offer intermodal carriage. While this is not an entirely rigorous approach, when this is matched to the significance of road transport in the carriage of cargo consigned to airlines the *prima facie* case for a wide market definition is evident.

Notwithstanding the irrelevance of the CAA's consideration of capacity constraints, its discussion of the views of air cargo operators at Stansted is superficial.

The CAA states that whether at the margin freight forwarders would switch their business between bellyhold and dedicated freight services (SMPA, Para 5.169) "would be contingent on the availability of spare capacity on such operators on a regular and reliable basis." One can agree with this proposition but it does not take the analysis far since there is no indication of whether there is such capacity. The CAA evidence for this is the submission of BA World Cargo, to the effect that its freighter operations at Stansted operate on routes where bellyhold capacity is insufficient or where there is no BA or other bellyhold service. The CAA concludes (SMPA, para

5.169): “This suggests that there may only be limited scope to switch away cargo onto other flights”. This is not compelling evidence because BA World Cargo is the freight-only subsidiary of BA passenger airlines, and therefore it clearly has limited incentive to compete directly with BA passenger bellyhold cargo services.

While we do not regard capacity and strategic constraints as relevant to market definition, we note the following common factors across all UK airports:

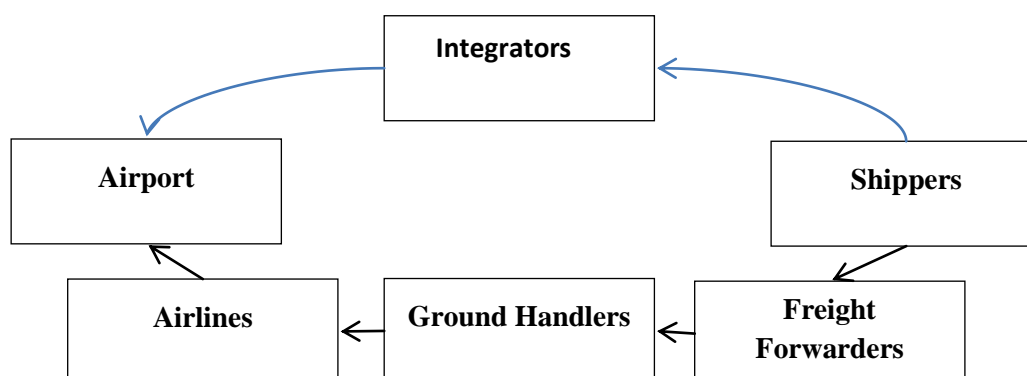
- **All London airports with the exception of London City have cargo handling capacity.**
- **Stansted can handle both bellyhold and dedicated cargo** – Stansted’s runways and facilities can handle both types of freight.
- **Constraint of past common ownership** – While the existing evidence indicates that Stansted handles a disproportionate amount of dedicated freight and little bellyhold freight, this is arguably the consequence of its previous ownership by BAA. Given that market definition should be under competitive conditions, the present configuration of bellyhold and dedicated cargo traffic is not evidence of the potential (competitive) constraints on Stansted’s pricing power.

D. FUNCTIONAL MARKETS

The CAA’s treatment of the air cargo market is very different from passenger services. The latter looks at the supply chain and attempts to take into account the interrelationship between different stages i.e. functional markets. The CAA’s analysis of the cargo market does not take a systematic view of the cargo supply chain and ignores the derived demand of shippers – whether importers or exporters.

The air freight supply chain consists of a number of links (Figure 4.1 below). These include air freight services supplied by the airport, airlines, freight forwarding services, ground handling and other airport services, and a range of "before and beyond" logistical services to bring freight to and from airports all differentiated by location. In addition, to borrow the derived framework of the CAA, the ultimate consumer is the shipper and it can be broken down more generically to importer or exporter. Indeed there is somewhat of an ambiguity over who is the ultimate consumer given that the party pausing the freight forwarder may not be the direct demander of the services and/or the party which ultimately pays the shipping costs (the latter because the shipping costs may be reflected in the price paid for the imports or exports).

Figure 4.1 – Supply chain of air freight



Freight forwarders are the direct purchasers of airline cargo services. They negotiate prices with the airlines in their own right, and are often able to secure better prices than could be negotiated directly by shippers. It is rare for shipper to contract or negotiate directly with airlines. Freight forwarders frequently consolidate cargo from many shippers into a “job lot” and buy bulk space for this and other cargo. There is evidence that freight forwarders have “buyer power” and have acted to constrain the prices that airlines can charge them for air freight services.

The integrators are essentially vertically integrated operators which combine freight forwarding, ground handling and airlines services. They deal directly with the end customer providing a range of services.

The CAA provides an unclear discussion of the cargo services supply chain and the demand characteristics. It appears at times to treat freight forwarders as a type of carrier (SMPA, para 4.134), whereas they are actually the shippers’ agent and operate at a different functional market between the airline and exporter/importer.

It is true that integrators exist which combine the provision of freight forwarding and air freight carriage services. But these constitute a very small proportion of the volume of air freight carried to and from the UK.

The critical point here is the role of freight forwarders and the way switching occurs in response to a SSNIP at each functional market and transmitted upstream to the CED for air freight services. In addition, while the treatment of passengers and airlines has been separated for airport charges to passenger airlines, the same is the case of cargo services; and in addition these are related in the overall profitability of a SSNIP assuming a non-discriminatory increase in charges.

E. SUMMARY AND CONCLUSION

In our opinion the CAA has failed to define the relevant product and geographic market for cargo. There is evidence that it may be wider to include road transport, and the evidence that it is confined to dedicated air cargo at Stansted is weak, or at least unsupported by any credible evidence.