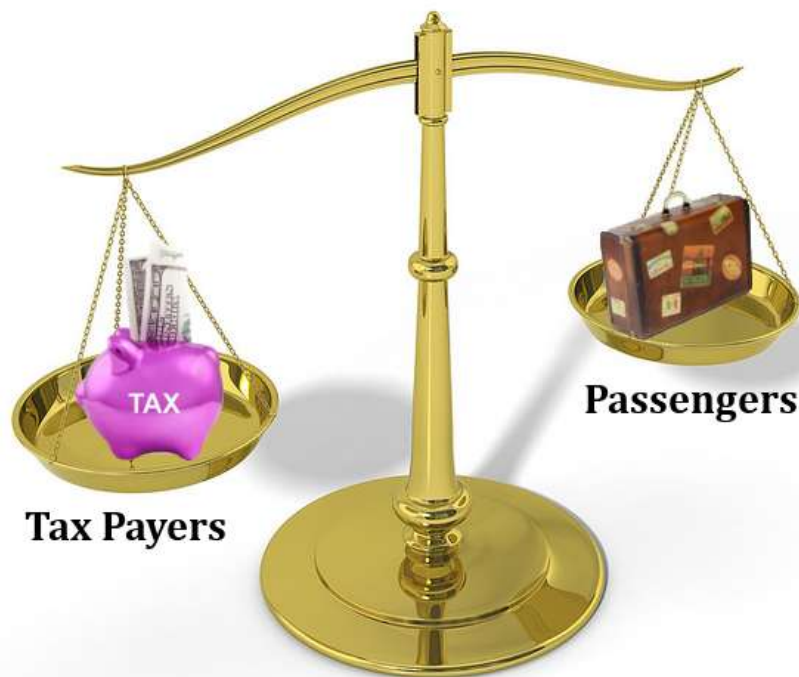


# Who would pay for a new runway?

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A study by Brendon Sewill

March 2014



*"The environmental impacts of new runways often take second place to economic considerations. While the economic benefits appear to dominate media headlines, the significant costs of building new infrastructure, and the thorny question of who pays, are often overlooked. When considering whether it can be worth the environmental price, it is important to bring these issues into the spotlight."* Tim Johnson, Director, Aviation Environment Federation

### Abstract

The current focus on whether and where to build a new runway in the South East is unique compared to previous attempts as the main airports are now separately owned, meaning that the costs of a new runway would fall only to the passengers using that airport. Although a new runway at Gatwick would cost less than one at Heathrow, the cost would be shared among roughly half as many passengers. A new runway at Heathrow would be likely to mean an increase in landing fees and other airport charges from £19 per passenger to £31. At Gatwick there would be a whacking increase from £8 to £33.60.

The choice is simple: a new runway will require the passenger to pay through increased charges or the increase will need to be offset by a public subsidy. A leading accountancy firm has concluded that a new Heathrow runway would need a subsidy of around £11 billion, and a new Gatwick runway nearly £18 billion. But with the Government reluctant to commit public funds, the most likely answer would be an increase in ticket prices that would drive airlines to other airports.

As the report concludes: *"If the punters won't pay, the runway won't fly"*.

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Brendon Sewill would like to acknowledge the valuable contribution made to this paper by Brian Ross, economic adviser to the Stansted environmental group, SSE.

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## Who would pay for a new runway?

### Introduction

In the past London's main airports were publicly owned, at first directly by the Government and then, after 1966, by the publicly owned British Airports Authority. That meant that the capital expenditure on any new development was met out of public funds. If the revenue did not meet the costs, the taxpayer paid.

As part of Margaret Thatcher's drive for privatisation, the British Airports Authority was incorporated in 1986 as BAA plc and privatised the next year. As well as keeping the same initials, the new company kept many of the same attitudes, in particular a belief that its main purpose was to serve the public, and that the cost of any new development should be shared between the passengers at all its airports.

A consortium led by Spanish company, Ferrovial, purchased BAA in 2006. That left many in the civil service establishment unhappy: partly because the purchase was helped by an EU tax loophole but mainly because a foreign company now controlled many of the UK's largest airports, including London's three main airports. The Competition Commission was wheeled in, and in due course recommended that Gatwick and Stansted should be sold off.

Heathrow remains in the ownership of the Ferrovial-led consortium, The BAA name has been dropped and the company is now known simply as Heathrow Airport Ltd.

Gatwick Airport Ltd (GAL) was sold in December 2009 to a consortium led by Global Infrastructure Partners. GIP has since sold 58% of GAL to a variety of foreign investors, including the Abu Dhabi Investment Authority, while retaining control.

After much legal argumentation, BAA sold Stansted Airport to the Manchester Airport Group in February 2013.

Luton is owned by Luton Borough Council but managed by the Spanish firm Aena.

Thus we now have a situation where there is competition between the London airports, or rather what the economists call 'imperfect competition': a situation where the market is dominated by a few large companies which eye each other like game cocks in a cockpit (in the 18<sup>th</sup> century meaning of the word), and take no decisions without first calculating how their competitors will react.

Forgetting the competition was the mistake that Manchester Airport made when they built their new runway in the late 1990s. They forgot to factor in competition from Liverpool and Leeds Bradford airports which, not having to pay for a new runway, had lower costs. The result is that the number of passengers using Manchester Airport in 2013 was just 8% more than in 2001, the year that its new runway opened, and the airport is currently operating at only 40% capacity. By comparison, the number of passengers using Liverpool and Leeds Bradford airports has doubled over the same period.

It is perhaps fortunate that Manchester Airport Group was, until last year, entirely owned and underwritten by the ten local authorities in the Greater Manchester Area. Were it otherwise, it is unlikely that the management would have survived such a monumental miscalculation. Indeed the company itself might not have survived.

That traumatic experience, burnt into their corporate consciousness, may help explain why the Manchester Airport Group is at present showing little enthusiasm for building a new runway at Stansted, let alone four new runways as suggested by the ever ebullient Boris. Especially as the official forecasts show that the existing runway will not reach full capacity until the late 2040s.<sup>1</sup>

A similar example of forgetting about the competition was the Channel Tunnel Rail Link which failed to cover its costs because it forgot to factor in competition from the ferries.

Gatwick's new owners have smartened the place up no end. GIP have, however, made no secret that they wish to sell their stake in 2018-20.<sup>2</sup> They are pulling out all the stops in their attempt to persuade the Airports Commission to recommend that a new runway should be built at Gatwick, knowing that – whether the runway is eventually built or not – permission would enhance the price at which they could sell.

More importantly, for the purpose of this paper, the break-up of BAA has totally altered the dynamics of funding a new runway. At one time BAA would have been able to spread the burden of funding a new runway among all the passengers using its three London airports –

Heathrow, Gatwick and Stansted. All three airports were subject to economic regulation by the CAA, and the CAA was in the past prepared to allow cross-subsidisation between the three airports. Now that the three airports are separately owned, the option of cross-subsidisation no longer exists.

There are signs that the Airports Commission has not fully come to grips with this new situation. They continue to look at the comparative total cost of the rival runway schemes, as if they were civil servants back in the glorious old days of the British Airports Authority when it was possible to work out what was best in the national interest without having to worry about the distasteful business of who was going to pay.

### Runways are expensive

When Ferrovial bought BAA they paid about £16 billion (£10.5 billion net of debt) for Heathrow, *and* Gatwick, *and* Stansted, *and* Edinburgh, *and* Glasgow, *and* Aberdeen, *and* Southampton airports, *and* the World Duty Free business not to mention majority holdings in Budapest and Naples airports. Now the Airports Commission estimates that the cost of a new Heathrow runway would be £13-£18 billion. So one new runway (plus of course one new terminal) could cost more than Ferrovial paid for the whole of BAA, including ten runways and thirteen terminals.

The contrast is even more stark at Gatwick. In December 2009 GIP bought the airport for £1.5 billion. Lock, stock and barrel – one runway, one subsidiary runway, two terminal buildings, cargo sheds, car parks, shops, restaurants, the lot – a special offer, all for £1.5 billion. Now the Commission puts the cost of a

new Gatwick runway at £10-£13 billion and so it would appear that a new runway would cost around seven or eight times as much as GIP paid to buy the whole place.

It would therefore not be entirely surprising if passengers found themselves having to pay more – a lot more – for the pleasure of using a new runway whether at Heathrow or Gatwick than they pay at present.

Airports in Britain have always boasted that they provide their own infrastructure without assistance from the public purse. When accused of paying no fuel tax, they always reply: ‘Ah, but unlike motorists, we pay for our own infrastructure.’ More precisely, Gatwick Airport Ltd have stated: ‘We anticipate that investment in a second runway at Gatwick would be financeable without recourse to public funds.’<sup>3</sup>

Others have argued that any new runway would need a large public subsidy. As part of their studies, the Airports Commission sought financial advice from KPMG, the largest accountancy firm in Europe. KPMG submitted their report to the Commission in December 2013 and this is what they said:

These [the costs of the various runway options] are clearly very significant sums and we know of no precedent of this scale for any purely privately promoted and financed projects (without government or other support) in the UK or worldwide.

The scale of the proposed schemes and of the financing challenge associated with each points to the criticality of government support. Government support could take various forms. For example, as shown in relation to all of the schemes below, this could comprise

government subsidy of scheme costs. The scale of this subsidy requirement varies by scheme but is in all cases substantial.<sup>4</sup>

KPMG suggested that – if airport charges were not increased – the Heathrow Hub scheme for extending the existing northern runway at Heathrow would require a government subsidy of £10.3 billion. The North West Heathrow runway, as favoured by Heathrow Airport Ltd, would need £11.5 billion.

The Gatwick runway option would, according to KPMG, require much the largest subsidy, at £17.7 billion - the difference being because the revenue at Gatwick, with fewer passengers, would be so much lower.

‘Billions’ are not easy to comprehend. Putting the same thing in more human terms - **the subsidy needed to build a new Gatwick runway would be more than the cost of 30 new hospitals.**<sup>5</sup>

The suggestion of a ‘substantial’ subsidy is not likely to go down well with the politicians who already suspect that air travel gets a cheap ride as a result of paying no fuel tax and no VAT (with APD only meeting a quarter of the tax lost). Moreover, to provide subsidies to an airport for a new runway would distort competition within the UK airports market and might well fall foul of EU competition rules.

The protagonists of new runways are already concerned that when the Airport Commission eventually gives birth to its report in summer 2015, the politicians will fail to implement its recommendation. If a new runway would require a substantial subsidy, and a consequent increase in taxation, the politicians will be even more likely to back off.

For the purpose of this paper, therefore, it is assumed that the full cost of any new runway will be paid by the fortunate airport, and by its perhaps less fortunate passengers.

### The cost of a new runway

Heathrow Airport Ltd have estimated that the cost of their new runway – the North West option – would be £16.9 billion.<sup>6</sup> This is in current prices, which is also the basis of all figures in this paper.

When GAL presented their preliminary runway plans to the Airports Commission in July 2013 three options were suggested, a close parallel runway, a medium-spaced runway and a wide-spaced runway. The cost was estimated at 'between £5 billion and £9 billion (in 2013 prices), depending on the option selected.'<sup>7</sup>

The Commission has stated that it intends to focus its study on the wide-spaced runway, which is the largest and most costly option.<sup>8</sup> That would imply a cost of £9 billion. Nevertheless in January their Chief Executive, Stewart Wingate, told a conference that they are planning to produce a design that would keep the price tag as close to £5 billion as possible.<sup>9</sup>

That sounds extremely optimistic. The KPMG report stated:

'The capital cost of developing the [Gatwick runway] scheme is estimated at £16.6 billion (comprising £14 billion of on-airport costs and £2.6 billion of off-airport (surface access) costs).'<sup>10</sup>

For good measure KPMG added:

Whilst this capital expenditure is spread over 21 years, and much of the cost is back-ended (the first five years sees only £0.9 billion expenditure), the anticipated revenue assumptions do not allow debt to be repaid as there is insufficient income to cover the interest on the debt.

Faced with these wildly different cost estimates, and with different methods of estimating costs used by the promoters of each of the runway schemes, the Commission decided to generate its own cost estimates so as to ensure a consistent comparison. Its calculations included allowances for risk and for optimism bias, recognising that, in large infrastructure projects, Sod's Law means that something always goes wrong.<sup>11</sup>

On that basis the Commission estimated that the cost of a new runway at Heathrow would be £13 - £18 billion by 2030 – and that there would not be much difference in the cost whichever Heathrow option were chosen.

For Gatwick, the Commission produced a figure of £10 billion to £13 billion.<sup>12</sup> Gatwick are said to be furious that the Commission shaved a bit off the Heathrow cost but upped the Gatwick cost, implying that GAL were being over optimistic.

One of the main claims that GAL make for their runway is that it is the cheapest runway plan on offer. The GAL Chief Executive has told MPs and has stated frequently on TV, that Gatwick is the cheapest. But what neither the Commission nor GAL have said is what the cost would be per passenger.

## The Coy Commission

The Airports Commission is remarkably coy about how much air passengers would have to pay for a new runway. All that their Interim Report says is that the cost of a new Heathrow runway could be met *‘with the airport’s aeronautical yields rising as a result to roughly one and a half times the level in the proposed Q6 settlement.’*<sup>13</sup> That is all. No more. Not exactly easy to understand.

For Gatwick the cost is expressed in the same opaque terms: a new Gatwick runway *‘would require aeronautical yields per passenger to be about a third more than the level of the proposed Heathrow Q6 settlement.’* No explanation.

Fortunately it is possible to translate these cryptic runes into plain English.

*‘Aeronautical yields per passenger’* translates as how much the average passenger pays for using an airport for example in landing fees, aircraft parking fees and airport charges per passenger. *‘The proposed Heathrow Q6 settlement’* relates to the maximum airport charges fixed for Heathrow by the CAA for the period from 1 April 2014 to 31 December 2018. That works out as an average per passenger of £19.74.<sup>14</sup>

So for Heathrow *‘one and a half times’* means about £31 at current prices. At Heathrow the average passenger would have to pay an extra £11.

For Gatwick, what the Commission is saying, ever so quietly, is that the charges would need to go up to a third more than £19.74 – i.e. to about £27 per passenger at current prices.

Not quite as high as at Heathrow but a very large increase compared to the present level of airport charges of around £8.<sup>15</sup> Even so, for the reasons set out below, the Gatwick figure may well be too low.

As a double check it is possible to make a back-of-an-envelope calculation of the cost per passenger. This is inevitably slightly technical, and it has therefore been consigned to an appendix at the end of this paper. Since the calculation confirms the figure produced by the Airports Commission it is more authoritative to use the Commission figure.

## Don’t forget the competitors

Because Heathrow exercises an hypnotic or magnetic attraction for airlines, an increase in charges from just under £20 to just over £30 per head would probably not prevent the new runway from soon reaching full capacity.

At Gatwick, however, the situation would be very different. An increase from £8 to £27 per head would come as an unpleasant shock for both airlines and passengers.

Stansted and Luton will have plenty of spare slots throughout the 2020s and 2030s. Both airports could offer much more attractive rates – at present at Stansted, as at Gatwick, they average about £8 per passenger.<sup>16</sup> A number of airlines would be tempted to move to Stansted, or at least operate new routes from Stansted. Certainly many of the new airlines which the Commission expect to be using Gatwick would be likely to choose Stansted instead.

Therefore the assumption by the Airport Commission that by 2030 Gatwick will be operating at 70% of the capacity of its two runways – that is 56 million passengers a year – may well be too high.

The reason why the Commission's logic is flawed is that they have relied on Department for Transport forecasts which, developed in the era before airports started competing with each other, do not take market forces into account. All airports are assumed to have similar operating costs, and the need to charge passengers the cost of building a new runway is not taken into account.

Gatwick is expected to reach full capacity on its existing runway sometime between 2020 and 2025, handling around 40 million passengers.<sup>17</sup> GAL say that they hope to open the new runway perhaps as early as 2025. Taking into account intense competition from Stansted and Luton, it seems unlikely that the number of passengers in 2030 would be more than 45 million.

Simple arithmetic shows that if the cost of a new runway shared between 56 million passengers would be £27 per passenger, then the cost shared between 45 million would work out at £33.60.

**Thus, if a new runway were to be built, every passenger passing through Gatwick in future would have to pay something like £33.60, instead of £8 at present.**

**On a return trip the cost would be around £67, instead of £16.**

**For a family of four going on holiday the cost would be £269, instead of £64.**

These results are not plucked out of the air; they are based on the figures provided by the Airports Commission – with the only difference that they take into account the likely competition from Stansted and Luton.

### **easyJet gets heebie-jeebies**

In case anyone might still be tempted to think that these figures are an exaggeration, it is good to find that they are lower than the estimate made by easyJet, Gatwick's largest airline. In October 2013 Carolyn McCall, Chief Executive of easyJet, said:

*'Our greatest concern is [that] the CAA has handed GAL a licence to print money and has significantly enhanced the value of the future sale of GAL by private infrastructure fund GIP. Using GAL's own figures passengers could be paying £28 more per flight for years in advance of the opening of a new £9 billion runway without any real oversight by the CAA.'*<sup>18</sup>

£28 more, i.e. on top of the present charges of £8 per passenger. And what is giving Ms McCall the heebie-jeebies is not only the prospect of a four-fold increase in airport charges but also the thought that GAL is to be allowed to put up the price before they build the new runway.

No wonder easyJet has not been jumping up and down with enthusiasm.

### **Air passenger duty – small by comparison**

As light relief it is instructive to make a comparison with air passenger duty. In the past two or three years the aviation industry has waged an apoplectic



campaign against APD. Ministers have been lobbied, full page advertisements have appeared in the national press, petitions galore have been launched, and every route which has cancelled has been blamed on the noxious influence of APD. Hard to say which has been the more frenetic – the lobbying against APD or the lobbying for a new runway,

**The rate of APD on flights to Europe is £13 with nil on the return flight. So if a new runway were to be built at Heathrow, a passenger on a return flight to Europe would find themselves paying £62 in airport charges compared with £13 tax. Indeed the new airport charges would almost be as high as the tax - £65 - on any flight up to 4,000 miles .<sup>19</sup>**

**For a passenger on a return flight from Gatwick to Europe (and 70% of Gatwick flights are to Europe) the airport charges with a new runway would be around £67 compared to £13 cost of APD.**

## Conclusion

For the past two or three years there has been unending discussion of where a new runway should be built. Every airport has spent millions on lobbying, every newspaper has carried innumerable articles, and almost everyone in every pub has a view on where it should be. But it seems that no one has stopped to ask “who will pay?”

The Airports Commission is drawing up an Appraisal Framework in order to compare and contrast the runway options but the draft document is silent on the issue of the cost per passenger.

The Commission is also proposing to draw up its own business plan for each runway option, based on information supplied by each airport. It is essential that these business plans address the issue of who would pay. And would they pay.

If the punters won't pay, the runway won't fly.

## Appendix

### How much would a new runway cost per passenger?

There is no real need to try to work out how much passengers would need to pay for a new runway: the figures have been given by the Airports Commission. But since they were presented in such an obscure fashion it is instructive to do a back-of-an-envelope calculation to help understand how they may have been arrived at.

A calculation can be done for either Heathrow or Gatwick but since the Gatwick results are the more surprising this note only deals with them

Let us start with the total cost of a new Gatwick runway, as calculated by the Commission, of £10 billion to £13 billion, and for simplicity use the mid-point, £11.5 billion. However, this figure includes surface access costs which KPMG estimated to be 15.6% of the total, i.e. in this case, about £1.8 billion. The Government might be prepared to pay the lion's share of surface access costs – say £1.5 billion – and so this would leave £10 billion to be funded by GAL.

Given a good prospectus, it can be assumed (although KPMG express some doubt) that most of this sum – say 60% – could be borrowed, probably through bond issues on the international money markets, and that the remaining 40% could be provided as equity either by the existing GAL shareholders or by bringing in new equity investors.

The Chairman of GAL has indicated that they might expect to get their money back over a 20 year period.<sup>20</sup> Nevertheless for

the purposes of this exercise let us disregard repayment because, provided the business is financially sound, bonds can be refinanced and debt rolled over. However, the debt needs to be serviced and a reasonable return on equity also has to be generated.

The CAA, in their calculation of the permitted level of charges for the Q6 regulatory period (the five years from 1 April 2014 to 31 March 2019), assessed Gatwick's pre-tax weighted average cost of capital (WACC) to be 5.7% in real terms. Given the extra risk associated with a new runway, the required WACC for this £10 billion project would need to be at least 7.0%, which would result in debt servicing costs of £700 million per year.

Over the coming five years the CAA expects Gatwick's operating costs to average about £275 million a year and that a further £300 million a year will be needed to cover the cost of capital and depreciation. Offset against these costs are anticipated commercial revenues (mostly from retail and car parking) of about £270 million a year, which leaves about £305 million a year to be generated from airport charges. That, in simple terms, is the formula used by the CAA in its arriving at its decision that GAL should be allowed to charge its passengers on average about £8 (at 2010/11 prices) during Q6.

With a second runway, GAL's operating costs would increase to about £410 million a year (in line with the forecast increase in passengers). Applying the same rate of depreciation as on its existing assets, the cost of depreciation would increase to about £775 million a year. Commercial revenues could be expected to rise in line with the forecast

number of passengers to about £405 million a year. As shown in the table below, this would leave £1630 million a year to be generated from airport charges.

The Airports Commission forecast that 'an expanded Gatwick could operate at

70% capacity in 2030 ...', and this would imply about 56 million passengers a year. That would equate to airport charges of about £29 per passenger in order to fund the investment in a second runway, as shown below.

### Gatwick Summary

	Average for 2014-19 (£m)*	Projected 2030 (£m)
<b>Operating expenditure</b>	275	410
<b>Depreciation</b>	150	775
<b>Cost of capital</b>	150	850
<b>Total revenue requirement</b>	575	2035
<b>Commercial revenues</b>	270	405
<b>Net revenue requirement</b>	305	1630
<b>Passengers (million)</b>	37.5	56.0
<b>Required yield per passenger</b>	£8.13	£29.11

\* CAA figures. Annual revenue and expenditure estimates have been rounded to the nearest £5m. Passenger estimates have been rounded to the nearest 0.5m

This back-of-the-envelope calculation is not as pessimistic as the KPMG analysis, nor as optimistic as the estimates being put forward by GAL. Its conclusion, a charge of around £29 per head, is similar to the Airport Commission's figure of £27.

If however, as predicted in this paper, the annual number of passengers in 2030 turned out to be lower than 56 million, the charge per passenger would need to be correspondingly higher.

### References

- <sup>1</sup> Stansted is forecast to reach its legal limit of 35 million passengers a year in 2041, but not reach its full capacity until the late 2040s.
- <sup>2</sup> GATCOM Minutes <http://www2.westsussex.gov.uk/ds/cttee/gat/gat260412i3.pdf> paragraph 109
- <sup>3</sup> Proposals for providing Additional Runway Capacity in the Longer Term. Gatwick Airport Ltd. 19 July 2013. Paragraph 8.7
- <sup>4</sup> KPMG. 10 December 2014. <http://www.airportwatch.org.uk/wp-content/uploads/0-Paper-High-level-Commercial-Financial-Assessment-of-Selected-Potential-Schemes.pdf>
- <sup>5</sup> Based on the cost of the new Queen Elizabeth hospital in Birmingham, opened in 2010, staff 6,900, construction cost £545 million.
- <sup>6</sup> Long term hub capacity options – Heathrow Airport Ltd response. July 2013

<sup>7</sup> Proposals for providing Additional Runway Capacity in the Longer Term. Gatwick Airport Ltd. 19 July 2013. Paragraph 8.3.

<sup>8</sup> Airports Commission Appraisal Framework Consultation. January 2014. Paragraph 4.10

<sup>9</sup> Reported in the Daily Telegraph 18 January 2014

<sup>10</sup> KPMG. 10 December 2014. <http://www.airportwatch.org.uk/wp-content/uploads/0-Paper-High-level-Commercial-Financial-Assessment-of-Selected-Potential-Schemes.pdf>

<sup>11</sup> Airports Commission Interim Report. December 2013. Box 6c, page 186.

<sup>12</sup> Airports Commission Interim Report. December 2013. Paragraph 6.75.

<sup>13</sup> Airports Commission Interim Report. December 2013. Paragraph 6.76

<sup>14</sup> 'Economic regulation at Heathrow from April 2014: notice of the proposed licence', CAA, January 2014. Executive Summary. Paragraph 4. The figure of £19.74 is at 2011/12 prices.

<sup>15</sup> Gatwick Airport Ltd Annual Report. Year ended 31 March 2013. Page 20

<sup>16</sup> Derived from Economic Regulation of Stansted Airport 2009-14, CAA Decision, March 2009, Table 1.

<sup>17</sup> Gatwick Airport Master Plan July 2012. Paragraph 4.2.10

<sup>18</sup> easyJet press release. [http://corporate.easyjet.com/media/latest-news/news-year-2013/03-10-2013aa-en.aspx?sc\\_lang=en](http://corporate.easyjet.com/media/latest-news/news-year-2013/03-10-2013aa-en.aspx?sc_lang=en)

<sup>19</sup> Rising to £67 in April 2014

<sup>20</sup> Financial Times 12 December 2013.