Heathrow Airport – Review of Commercial Revenues

Final Report
April 2017

Civil Aviation Authority

Our ref: 23049601
Client ref: 2553

steer davies gleave

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Overview

This report has been prepared for the CAA by Steer Davies Gleave and is a high level study of the recent commercial revenue performance of Heathrow Airport Limited along with opportunities to develop these further.

The scope of the study is:

- Benchmarking of HAL's commercial revenues against relevant benchmarks;
- Analysis of the drivers of commercial revenues including explanation of difference in outturn revenues versus the Q6 settlement;
- Lessons learned that can be adopted for the CAA's H7 process;
- Identification of methods to increase revenues from existing sources;
- Assessment of the scope for increasing net revenues by introducing additional commercial uses of a similar type, further types of commercial development, and/or improving the mix of commercial activities, taking into account the wider interests of passengers; and
- Suggestions of possible further analysis to support the development of reliable conclusions.

Key Findings & Recommendations

Retail

Item	Comments
2015* trading performance (net)	• £422 million, £5.63/passenger • Performance versus CAA Q6 Determination (cumulative April 2014-December 2015): CAA £700 million, actual £721 million. • However cumulative retail revenue per passenger is below the CAA forecast, reflecting a significantly higher volume of passenger traffic than assumed for the Q6 Determination: CAA £5.49, actual £5.45.
Benchmark position	• Heathrow is a benchmark in the world of airport retail. • It generally has a superior revenue per passenger performance than peers in individual retail categories, and in overall terms has the highest level of retail revenue per passenger amongst the major airports we have compared it against.
Key findings	• The airport has direct relationships with and the presence of the world's leading luxury brands, and trades its space very effectively to drive sales and margin. • Changing consumer shopping behaviour facilitated by the development of e-commerce – while it is impossible to predict the full impact e-commerce will have on Travel Retail, the millennials who have grown up with e-commerce will expect to experience the same degree of flexibility towards their shopping at the airport as when they are at home. This means that the foundations for this change must be considered and developed so that HAL is ready for this eventuality. A new business model could be considered to radically grow sales, combining HAL's retail and e-commerce capability with the airlines access to 100% of passengers travelling through Heathrow Airport. HAL and its airline partners could be the disruptor to Travel Retail. • Most airports deliver step change in their retail revenues as a consequence of expanding their retail space. It is clear that in the absence of material additional space being available at Heathrow over the medium term combined with the fact they are already space constrained (compared to existing benchmarks), there is reason for concern over future revenue growth. This is a major issue both commercially and for passenger experience. Conversely, developing new space will be very expensive requiring innovative solutions in order to deliver successfully. • Possibly linked to space constraints, it appears that HAL's struggle to

Item	Comments
	grow sales materially has driven them to adapt their approach, sacrificing flexibility in some cases (for example through awarding longer contracts, at improved margins for HAL, which can bring revenue benefits in the short term but which also lengthen the period in which a concessionaire can operate, potentially creating an issue for the future should sales performance stagnate or deteriorate). While this has supported revenues in the short term there is a limit to how far they can go without causing long term damage as a result of moving away from principles which made them so successful in the first place. • We have mentioned areas where HAL has more or less influence but it is difficult to see how, in the absence of significantly more space, where HAL will derive material levels of incremental revenue. There is a risk the airport could therefore become more exposed to areas outside of its control such as exchange rates, shopping habits and above all else, a disruptor to the sector – the 'Uber' of Travel Retail.
Recommended future analysis	• Commission a detailed review of commercial space to define the optimal amount of retail space going forward. To include a full review of Satellite buildings outlining how they could be commercialised and cost benefit analysis on the development of retail space over cost of delivery. • Explore potential future legislative impacts on retail sales, upside or downside. • Review opportunities or threats in terms of HAL's ability to continue to control the passenger-related retail distribution channel given changes led by e-commerce. • Consider means to incentivise the airport community (HAL, airlines, retailers) to collaborate to drive commercial revenues growth - a new business model.

Car Parking

Item	Comments
2015* trading performance	• £107 million, £1.43/passenger • Performance versus CAA Q6 Determination (cumulative April 2014-December 2015): CAA £173 million, actual £185 million. • Cumulative car parking revenue per passenger: CAA £1.35, actual £1.39.
Benchmark position	• At headline level Heathrow's car parking revenues per passenger are on a similar par to those of other major leading airports and/or airport groups in Europe. • However the headline results are influenced by factors including the demographic mix of airport travellers and HAL's policies towards reducing the number of car journeys in order to control environmental emissions. • Adjusting for some of these factors Heathrow attains higher parking revenues per passenger than Gatwick.

Key findings	• In comparison with its peers, HAL leads the airport parking market through its:
	  ◦ Consumer strategy offering a wide choice of quality products and competitive pricing particularly during off peak; and
	  ◦ Parking operation deploying best practice technology and processes in a highly competitive environment.
	• It appears that there is a limit to what HAL can learn from other UK or International airports that would make any real difference to parking revenues given its geography and available capacity, save for reviewing its distribution strategy and assessing whether a wider strategy with affiliates such as airlines and other consolidators could indeed generate material parking revenues/provide wider commercial opportunities.

Recommended future analysis	• Conduct a high level review of car park operator and HAL marketing costs (as part of an overall Heathrow car parking cost review) and benchmark where possible to other best practice airports to identify any potential for further cost savings. • Review time band analysis for HAL's short stay car parks to assess opportunities for further restructuring to provide additional revenue opportunities i.e. by minute /differential pricing by Terminal.

Property

Item	Comments
2015* trading performance	• £112 million, £1.49/passenger • Performance versus CAA Q6 Determination (cumulative April 2014-December 2015): CAA £203 million, actual £195 million. • Cumulative property revenue per passenger: CAA £1.59, actual £1.47.
Benchmark position	• There is some evidence of outperformance in property revenues by individual peers, although Heathrow is towards the upper end of the range when compared to other leading airports. • From a pure benchmarking perspective one should not take the performance at face value as some airports with higher revenue are known to operate under a different model, they act as the developer, invest more money than HAL and as a consequence enjoy higher returns. With no material new space coming on-line before R3 this is a model HAL might need to explore.
Key findings	• While HAL does not necessarily lead its peers in relation to Property revenue per passenger it is important to remember that HAL's property revenue in and around the terminal areas is largely influenced by the Guide Price Formula, over which it has no control and, in the case of property located around the Perimeter there are limitations due to local competition. • HAL has developed alternative, passenger-facing, ways to develop Property space e.g. pay on entry lounges. The turnover based rents can match and potentially exceed the guide price rents if the lounges are successful. • As with Retail, there is a general shortfall in property space which should be reviewed as this will constrain revenue growth.
Recommended future analysis	• Detailed Property Strategy, reviewing all space, what do HAL own, how is space used, opportunities to materially change the way they do business today e.g. lower cost buildings.

Note: * 2015 is the most recent period covered by the HAL Regulatory Accounts at the time of writing of this report (March 2017)

Glossary

ACC	Airline Consultative Committee
ANPR	Automatic Number Plate Recognition
AOC	Airline Operators Committee
APCOA	APCOA Parking
APH	Airport Parking & Hotels
ATV	Average Transaction Value
CRM	Customer relationship management
CTA	Central Terminal Area
E & M	Electronic & mobile commerce
ETRC	European Travel Retail Confederation
F & B	Food & Beverage
FBP	Final Business Plan
HAL	Heathrow Airport Limited
HEX	Heathrow Express
H7	Regulatory period (next)
IAPA	Independent Airport Parking Association
IATA	International Air Transport Association
IPD	UK Monthly Property Index (published by MSCI)
KPI	Key performance indicator
MAT	Moving annual total
MPPA	Millions of passengers per annum
MSCP	Multi storey car park
ONS	Office for National Statistics
PRT	Personal Rapid Transit
Q6	Regulatory period (current)
ROI	Return on investment
RPI	Retail Price Index
R3	Heathrow with three runways
TDA	Tobacco Display Area
WDFG	World Duty Free Group
WHS	WHSmith
VAT	Value added tax
YoY%	Year on year % change

1 Introduction

Background to this study

1.1 The CAA is starting to prepare for the forthcoming H7 review of airport charges at Heathrow Airport and is gathering evidence on Heathrow Airport Limited's ('HAL') revenues and costs to aid its assessment.

1.2 The CAA has commissioned Steer Davies Gleave to develop a high level study which examines Heathrow's performance in generating commercial revenues. The results of this study will be used to make initial judgements about priority areas and to supplement the process of Constructive Engagement between HAL and airlines in summer 2017.

Scope of the study

1.3 The focus of the study is on both the historical levels of performance of commercial revenues at Heathrow (in absolute terms and also versus the CAA's Q6 Settlement), and also the scope for developing them further in the future.

1.4 The scope comprises:

- Benchmarking of HAL's commercial revenues against relevant benchmarks;
- Analysis of the drivers of commercial revenues including explanation of difference in outturn revenues versus the Q6 settlement;
- Lessons learned that can be adopted for the CAA's H7 process;
- Identification of methods to increase revenues from existing sources;
- Assessment of the scope for increasing net revenues by introducing additional commercial uses of a similar type, further types of commercial development, and/or improving the mix of commercial activities, taking into account the wider interests of passengers; and
- Suggestions of possible further analysis to support the development of reliable conclusions.

Sources

1.5 Our report has drawn on various sources in the public domain, including HAL's published Regulatory Accounts, and has also been informed by confidential materials shared with us by HAL.

1.6 We have also interviewed the following organisations:

- HAL (Retail, Car Parking, Property);
- Concessionaires:
  - World Duty Free Group (WDFG); and
  - Car parking Managing Agent: APCOA.
- European Travel Retail Confederation (ETRC); and

- Airlines (representatives of IATA, Heathrow AOC, Heathrow ACC, British Airways).

Price bases

1.7 Unless stated we have expressed sales and revenues in 2015 real prices. This recognises that information in the public domain, notably HAL's Regulatory Accounts, is at the time of writing of this report only available up to and including 2015.

1.8 Where we have received confidential or non-published data from HAL for 2016, in part or the full year (e.g. Tobacco sales), we have converted this to 2015 prices unless stated, and similarly have adjusted any supporting historical time series in the same way.

1.9 In all cases where data is converted to real prices we have used published ONS RPI tables.

Introduction to HAL's commercial revenues performance

How HAL derives its commercial revenues

1.10 **Services to Passengers** – this includes areas such as retail, food & beverage, bureaux de change, advertising, car parking and car rental. With the exception of car parking these services are operated on a concessionaire model where a third party is responsible for the front line provision of the service and the airport receives a concession fee based on a percentage of the concessionaire's net sales turnover. In most cases the concession fee is underwritten by a minimum guaranteed rent. Car Parking is based on a management contract whereby HAL collects all of the revenue and the car park operator is paid a fee plus operating costs for providing car park services to the passenger. This particularly benefits HAL as all of the revenue growth from passengers and tariff increases is fully realised by HAL rather than being shared with the car park operator.

1.11 **Services provided to airlines and other business users** – this includes areas such as check-in desks, office rental, airline lounges and warehousing. Charges for these services are often fixed or volume related and as a consequence are less likely to increase at the same rate as passenger growth.

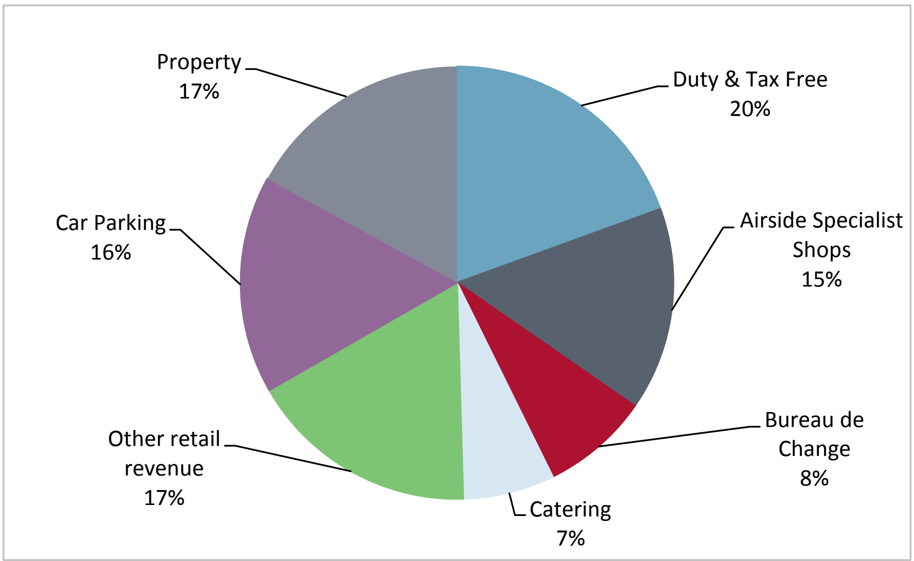
1.12 The scope of this review encompasses HAL's commercial revenues contributing to the single till calculation of the price control. At present these comprise revenues from the following non-aeronautical activities:

- Retail:
  - Duty & Tax Free;
  - Airside Specialist Shops;
  - Bureau de Change;
  - Catering;
  - Other Retail income;
    - includes Bookshops, Car Rental, Advertising, Other Retail activities;
- Car parking; and
- Property.

Recent performance

1.13 HAL's regulatory accounts show that the company earned £641 million in net commercial revenues in calendar year 2015, comprising the following mix:

Figure 1.1: HAL commercial revenues (gross) in 2015



Source: HAL regulatory accounts 2015

1.14 In overall terms the actual revenues achieved in 2015 were fractionally higher than those assumed by the CAA for the Q6 Determination (Actual: £658m gross, CAA £654m).

1.15 However the actual performance was derived from a materially higher volume of passengers (75.0 million) than those assumed by the CAA for 2015 (72.0 million), indicating that per passenger revenues have failed to develop fully in line with Q6 Determination expectations.

Table 1.1: HAL Commercial revenues per passenger, 2015

2015	Retail & Car Parking	Property	Total
CAA	£7.47	£1.61	**£9.08**
Actual	£7.28	£1.49	**£8.77**

Note: Gross revenues incl. retail expenditure

1.16 Adjusted for inflation, HAL's cumulative commercial revenues performance from April 2014 – December 2015 has also been close to the CAA forecast. In 2015 prices the airport generated revenues of £1.093 billion in this period, +1.0% more than the CAA forecast of £1.082 billion.

1.17 The actual cumulative per passenger revenues has been lower than projected, at £8.26 per passenger versus the CAA's expectation of £8.49 (-2.8%).

This study

1.18 In the remainder of this report we:

- Summarise the recent performance of commercial revenues at Heathrow versus those at peer airports;
- Assess the key scope areas as they relate to retail, car parking, and property respectively.
- Summarise our main findings along with recommendations for additional analysis.

2 Commercial revenues benchmarking

Introduction

2.1 This section of the report introduces HAL's revenue performance in the areas of scope, and compares it to relevant UK, European and global airport benchmarks for which there is data available in the public domain.

2.2 In 2015 HAL earned the following revenues from its regulated commercial revenues:

Table 2.1: HAL Commercial revenues by category – 2015

Category	Revenues (£m)	Revenues/Passenger
Duty & Tax Free	128	£1.71
Airside Specialist Shops	100	£1.33
Bureau de Change	53	£0.71
Catering	45	£0.60
Other Retail income	113	£1.51
Retail expenditure	-17	- £0.23
Retail (Total)	**422**	**£5.63**
Car parking (Total)	**107**	**£1.43**
Property (Total)	**112**	**£1.49**
Total	**641**	**£8.55**

Source: HAL Regulatory Accounts 2015

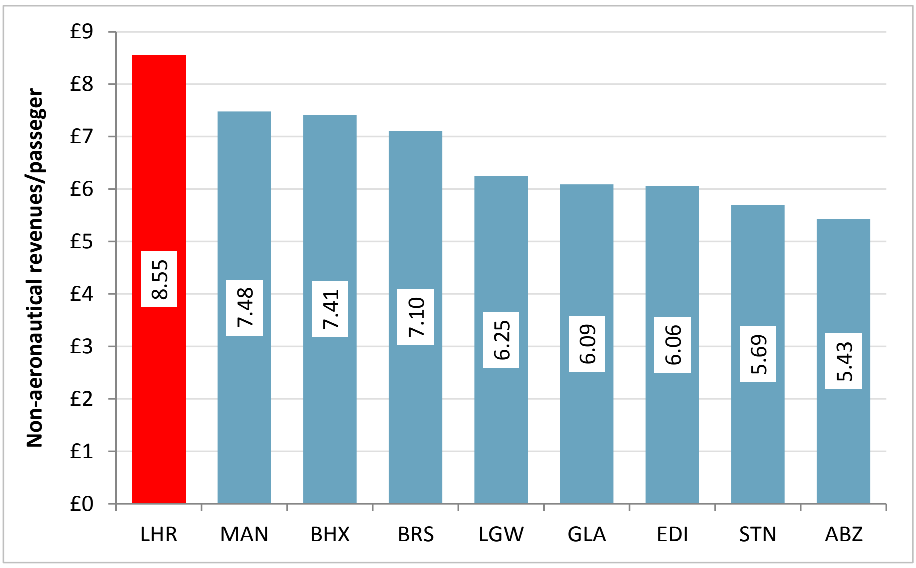
Benchmarking Analysis

Performance at total level

2.3 At an overall level Heathrow achieved the highest levels of commercial revenue per passenger among the UK's leading airports. The airport earned £8.55 per passenger from its regulated commercial revenues streams, over £1 per passenger more than at Manchester, and £2.30 more than at Gatwick.

2.4 The data for some of the airports shown below includes revenues from sources which are not regulated at Heathrow. Adjusting the comparison to take into account the income HAL earns from the other non-airport charges streams (Rail, Other Regulated Charges, Other) reported in its regulatory accounts would widen the gap substantially further, with HAL generating £13.95 per passenger across all its non-airport charges revenues in 2015.

Figure 2.1: UK airports – Total commercial revenues per passenger, 2015

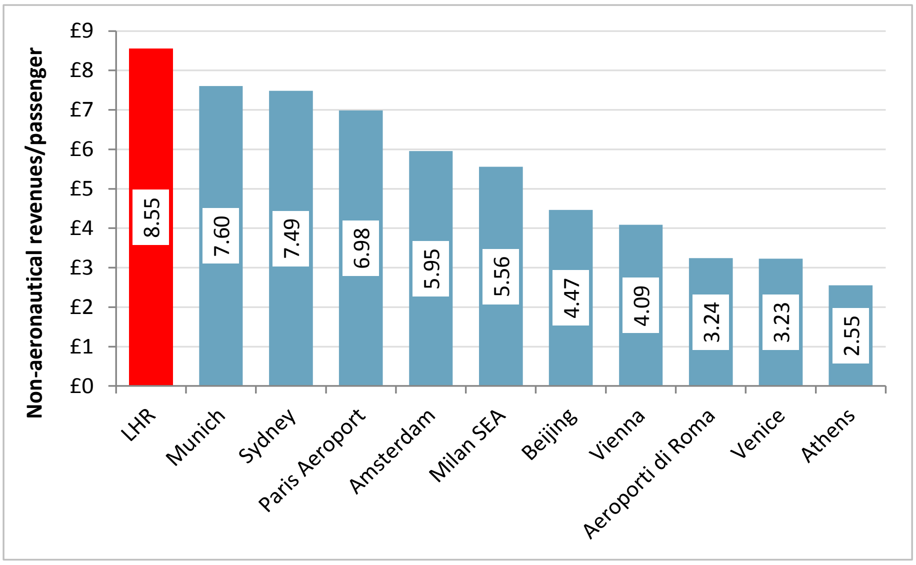


Source: Steer Davies Gleave analysis of published airport annual accounts

Note: Calendar year 2015 except for the following airports for which the data relates to 2015/16; Manchester, Gatwick, Stansted, Birmingham. Definitions of commercial revenues may vary between airports, notably in relation to classification of ancillary revenues such as operational facilities income.

2.5 Heathrow also generates a higher amount of commercial revenues per passenger than its leading international peers.

Figure 2.2: International airports - Total commercial revenues per passenger, 2015



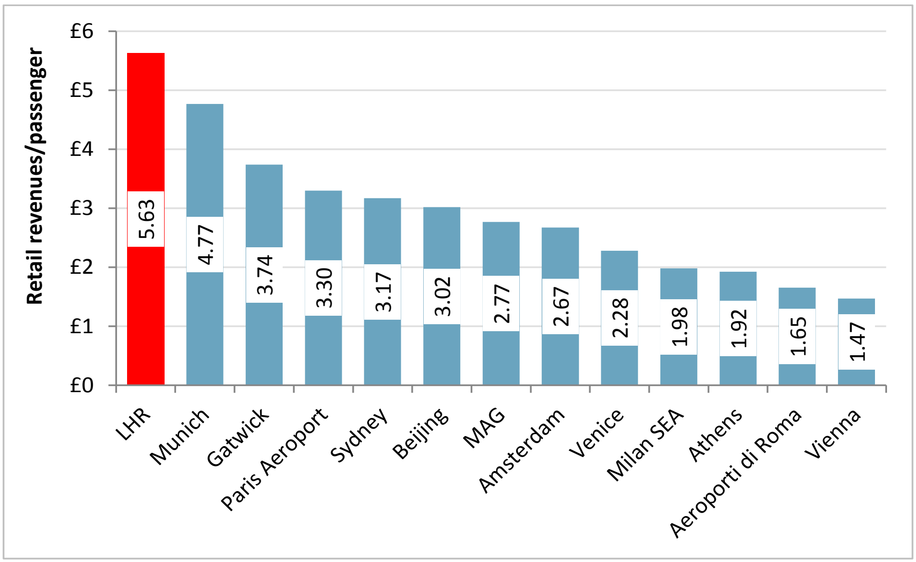
Source: Steer Davies Gleave analysis of published airport annual accounts
Note: Revenues recorded in local currency and converted to sterling at average rates for 2015.
Airport group components: Paris Aeroport – Charles de Gaulle, Orly; Milan SEA – Linate, Malpensa; Aeroporti di Roma – Fiumicino, Ciampino

Performance at category level

Retail

2.6 Heathrow generally has a superior revenue per passenger performance than peers in the retail categories.

Figure 2.3: International airports - Retail revenues per passenger, 2015



Source: Steer Davies Gleave analysis of published airport annual accounts

Note: All airport figures are for 2015 except for Gatwick and MAG (2015/16). Foreign airport revenues recorded in local currency and converted to sterling at average rates for 2015. Heathrow retail figures are net of expenditure.

Airport group components: MAG – Manchester, Stansted, East Midlands, Bournemouth

2.7 Evidence from individual retail product categories suggests that Heathrow generally tends to outperform peers at this level too, although Gatwick has a stronger Catering performance:

Table 2.2: Leading European airports – Retail revenues by product category, 2015*

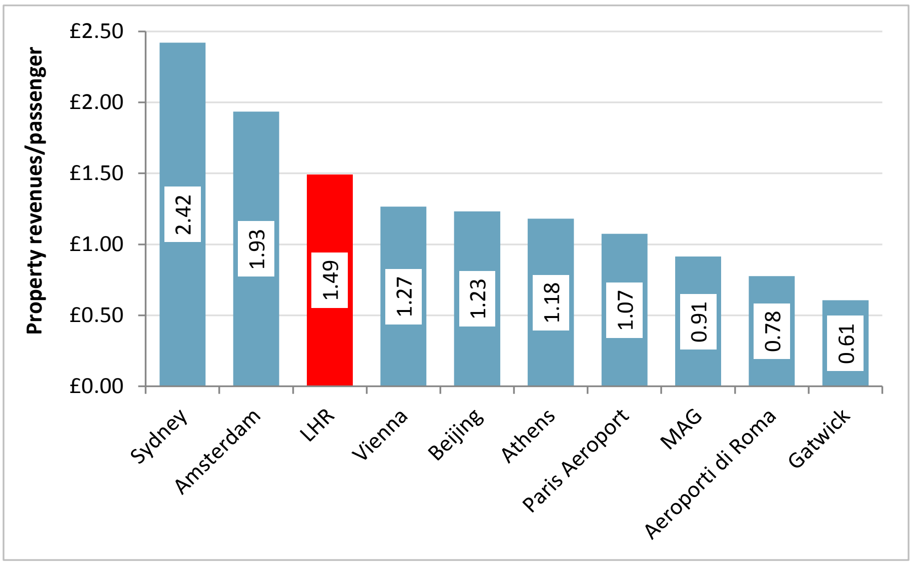
Airport	Duty Free	Specialist Shops	Bureau de Change	Catering
LHR	£1.71	£1.33	£0.71	£0.60
Gatwick	£1.17	£0.95	£0.57	£0.68
Paris Aeroport	£2.48**	-	£0.17	£0.24
Aeroporti di Roma	£0.63	£0.44	£0.14	£0.43
Amsterdam	-	-	-	£0.41

Sources: Steer Davies Gleave analysis of published airport annual accounts Note: * all airport figures are for 2015 except Gatwick (2015/16) **Duty Free and Specialist Shops appear to be counted together. Foreign airport revenues recorded in local currency and converted to sterling at average rates for 2015.

Property

2.8 There is some evidence of outperformance in property by peers:

Figure 2.4: International airports - Property revenues per passenger, 2015



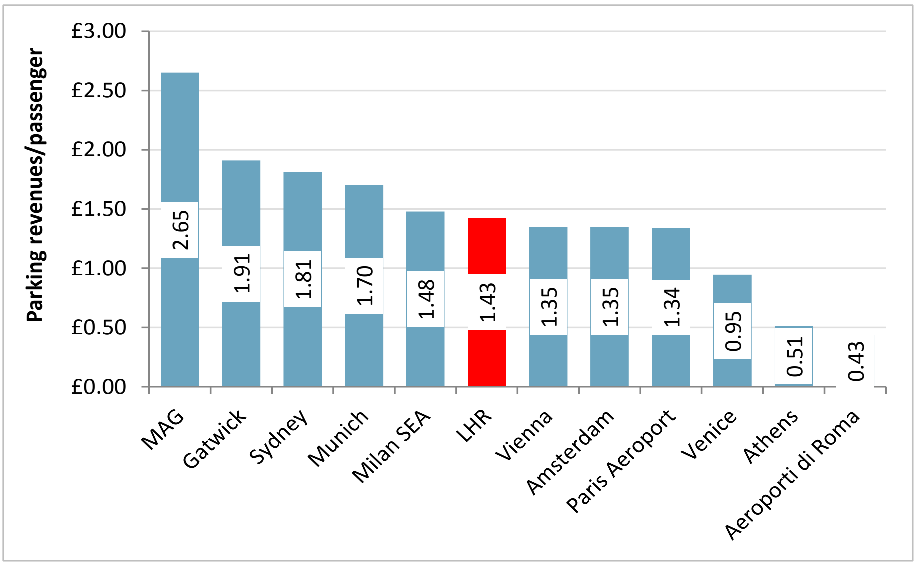
Source: Published airport annual accounts

Note: All airport figures are for 2015 except for Gatwick and MAG (2015/16). Foreign airport revenues recorded in local currency and converted to sterling at average rates for 2015.

Car Parking

2.9 Car parking is a category in which our analysis, assessing parking revenues in terms of total passenger volumes, suggests that some peer airports are performing better.

Figure 2.5: International airports – Car parking revenues per passenger, 2015



Source: Published airport annual accounts

Note: All airport figures are for 2015 except for Gatwick and MAG (2015/16). Foreign airport revenues recorded in local currency and converted to sterling at average rates for 2015.

2.10 However, the result is skewed by the relative proportions of connecting traffic (as passengers transferring between flights will not have access to their own car, except at the airports at which they start and end their trip). In addition, the comparative results are influenced by:

- Heathrow's higher share of foreign resident passengers who do not have access to a private car (for parking);
- HAL's Surface Access strategy which aims to reduce the number of car journeys passengers take to the airport in order to control emissions, and which targets 45% of passengers using public transport by 2020, and 50% by 2030; and
- Heathrow's range of alternative surface access options.

2.11 Adjusting the analysis for the UK airports to non-connecting traffic only:

Table 2.3: UK airports – Parking revenues per non-connecting passenger, 2015*

Airport	Revenue per passenger
MAG	£2.74
Heathrow	£2.22
Gatwick	£2.04

Source: Steer Davies Gleave analysis of published airport annual accounts, CAA

Note: *Revenue figures for MAG and Gatwick are for 2015/16. Non-connecting passengers derived from % splits in CAA Departing Passenger Survey 2015 times total passengers.

Areas in which other airports outperform Heathrow

2.12 From the analysis above, areas in which there is evidence of outperformance versus Heathrow that could be investigated further include:

- Retail
  - Catering: Gatwick (Heathrow's issues relative to Gatwick are likely to be constrained space, a higher proportion of full service airlines providing free food and drink on board, connecting passenger mix and cultural differences in passenger mix).
- Car Parking:
  - MAG.
- Property:
  - Amsterdam, Sydney.

Summary

2.13 The key issues arising from our benchmarking analysis are:

Table 2.4: Benchmarking Heathrow's commercial revenues – Key issues

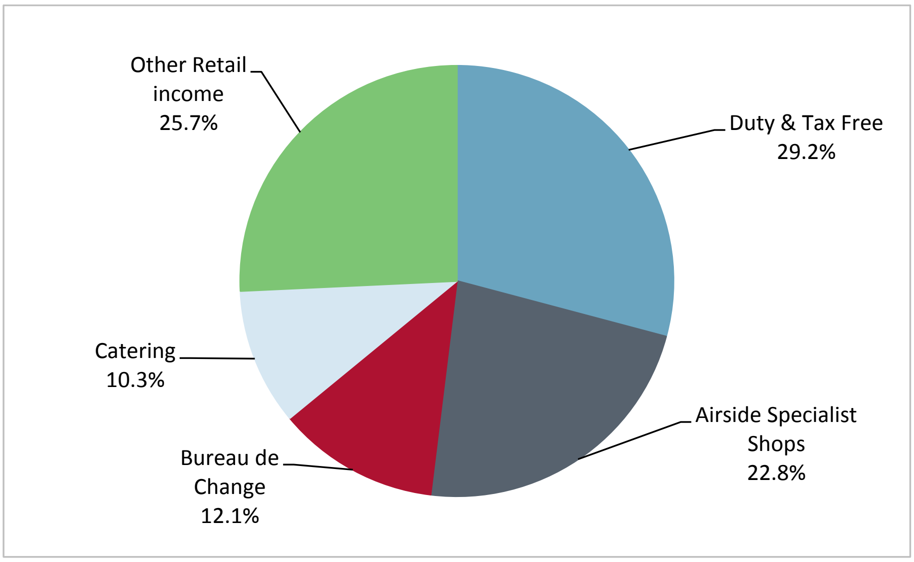
Area	Comment
Total commercial revenues	• Heathrow ahead of UK and global peers
Retail	• As above at overall Retail level • Slightly behind Gatwick for Catering revenue per passenger
Parking	• Adjusting to comparing revenues on a non-connecting passenger basis, Heathrow is ahead of peers with the exception of the MAG airports
Property	• Heathrow generally ahead of peers, with the exceptions of Sydney and Amsterdam

3 Retail

Recent performance trends

3.1 HAL's Retail activities generated £439 million in gross revenues during 2015. The largest category (by revenue) was Duty & Tax Free (£128 million).

Figure 3.1: HAL – Retail revenue mix, 2015



Source: HAL Regulatory Accounts, 2015

3.2 HAL's Retail revenues have grown strongly in real per passenger terms in the past two years. In 2013/14[1] they averaged £6.64 (including Car Parking revenues), this grew by 6% to £7.05 in 2015.

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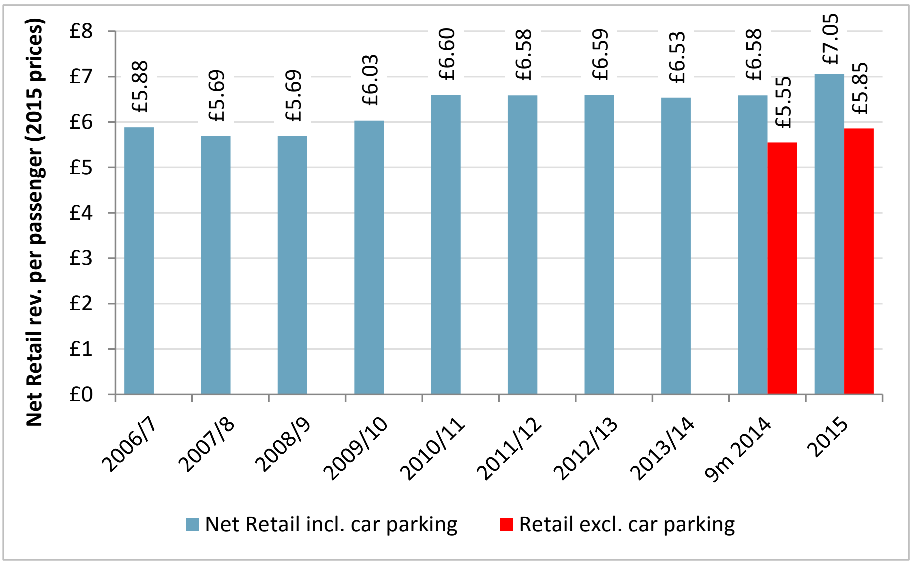
[1] Data from HAL's regulatory accounts, these moved from a fiscal to calendar year basis after 2013/14.

Figure 3.2: Net Retail revenues per passenger (2015 prices)



Source: HAL Regulatory Accounts

Note: Basis of regulatory accounts changed during 2014 from fiscal to calendar year basis, 2014 results reported for April-December only. Car parking revenues not separately reported in HAL Regulatory Accounts before 2014.

3.3 However, over the longer term real per passenger revenues have fluctuated in a range of £6 to £7. In 2010/11 they were very close to 2015 levels (which represent the record over the past 10 years), and have remained at, or above, £6.60 per passenger since then.

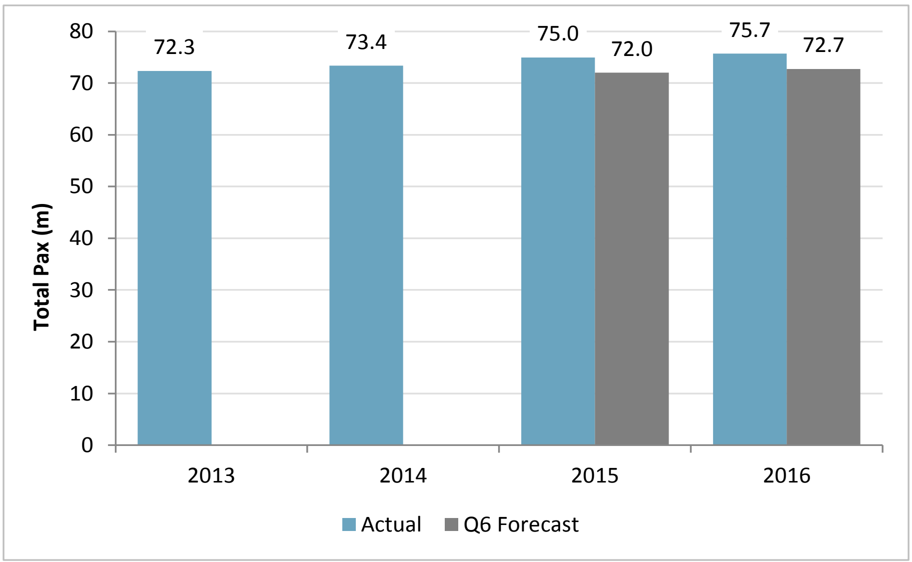
Drivers of Retail performance

Traffic volume and mix

3.4 HAL's commercial revenue performance during Q6 has taken place against a backdrop of generally steady growth in traffic volumes, with the exception of 2016 when traffic growth slowed to close to 0% in the period from April 2016 onwards. Over the 2013-2016 period annual traffic growth averaged +1.5%.

3.5 Passenger volumes have also been substantially higher than assumed for the Q6 Determination, exceeding the CAA's forecasts by about 3 million passengers in both 2015 and 2016.

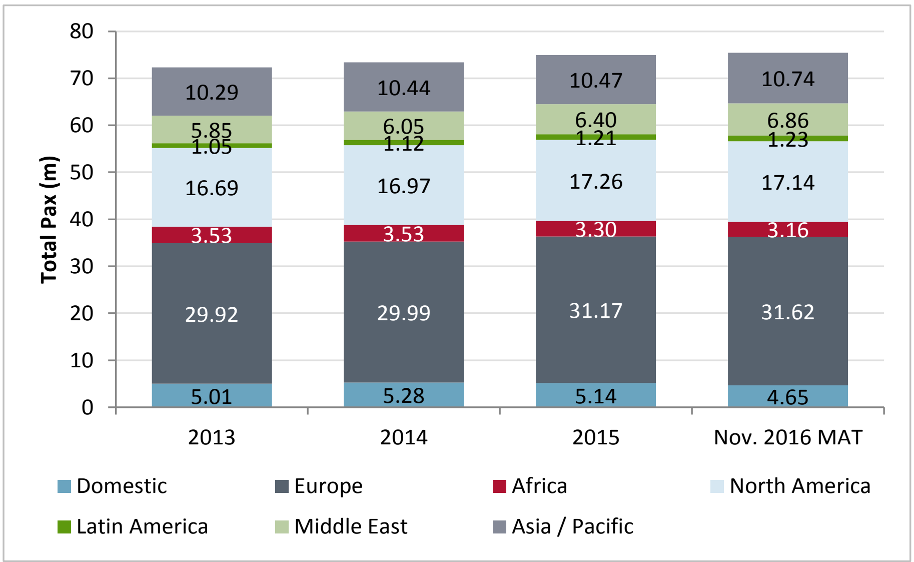
Figure 3.3: Heathrow Airport – Annual passenger traffic, 2013 – 2016



Source: HAL

3.6 As one of the world's largest hub airports, Heathrow serves a wide array of global markets.

Figure 3.4: Heathrow Airport – Annual passenger traffic by geographical market, 2013 – November 2016 MAT



Source: HAL

Note: Market indicates flight point of origin/destination

3.7 Recent traffic growth has been strongest to Latin America (CAGR 2013-November 2016 MAT:+5.5%) and the Middle East (+5.4%).

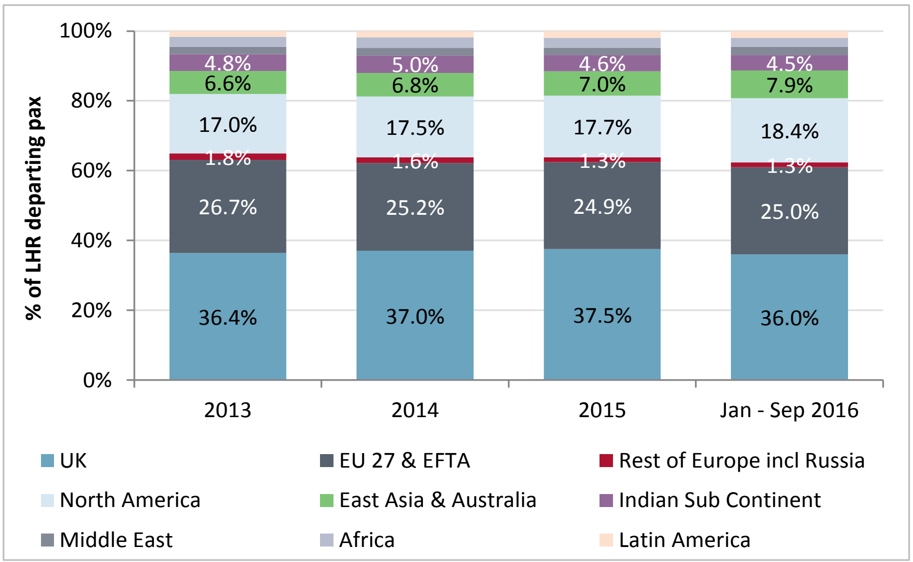
3.8 Volumes have declined to Africa (CAGR -3.6%), where traffic to North Africa has been disrupted by the effects of terrorism and/or civil unrest in Libya, Tunisia and Egypt.

3.9 Volumes have also fallen on UK domestic routes (CAGR -2.4%). This is in line with a more general long term reduction in UK volumes served from

Heathrow (2005: 6.67 million passengers, November 2016 MAT: 4.65 million) coincident with strong growth in international traffic (2005: 61.01 million, November 2016 MAT: 70.76 million).

3.10 The spread of Heathrow's global route network also influences the nationality mix of travellers using the airport. In recent years UK nationals have constituted 36-37% of the passenger mix, with other major groups including nationals from the European Union and EFTA countries (2015: 25%), North America (2015: c.18%) and East Asia/Australia (2015: c.8%).

Figure 3.5: Heathrow Airport – Passenger nationality mix, 2013 – Q3 2016



Source: HAL Passenger Profiler (departing survey)

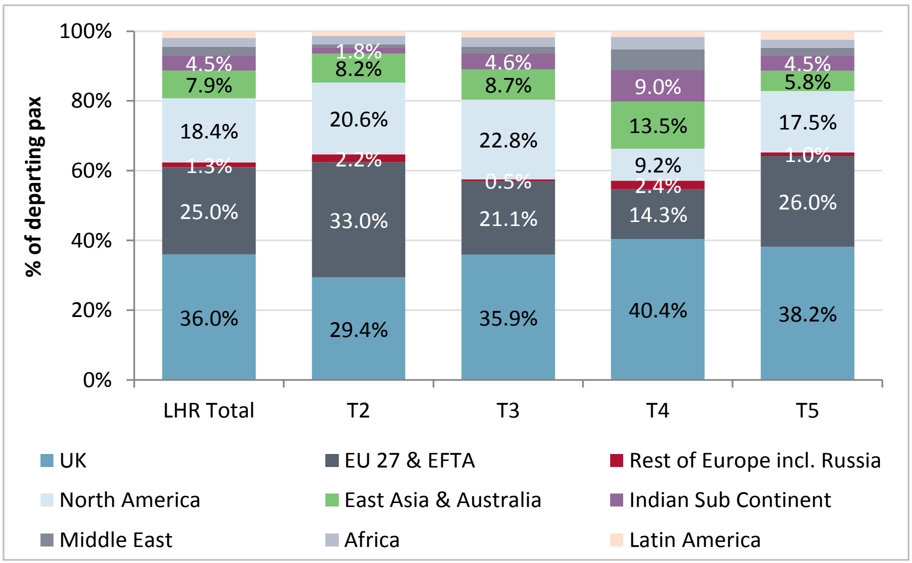
3.11 Notable recent movements in the nationality mix between 2013-2015 included:

- Higher UK national % share;
- Lower share of EU/EFTA nationals;
- Lower share of Eastern Europeans (important as Russians are traditionally high spenders);
- Increase in North Americans (important as this group is traditionally relatively low spend); and
- Increase in East Asia/Australia share driven by growth in East Asians (assumed to be predominantly Chinese who are important spenders, but less so than other groups such as Russians).

3.12 The survey data indicates further shifts in the nationality mix in 2016, although it is not clear to what extent these reflect seasonality impacts (at the time of our review 2016 data on Heathrow's passenger demographics has only been available up to the end of Q3) or real mix changes.

3.13 The mix by passenger nationality is not uniform across Heathrow's terminals. At any one moment in time this can influence the comparative retail revenue performance between terminals. However, it is also important to consider in the dynamic context of airline relocation from one terminal to another for operational reasons. Such moves can result in high or low spending groups moving terminals, an effect that can potentially be beneficial or adverse for retail revenues depending on the passenger groups and terminals involved, and reflecting the alignment between the retail offer in individual parts of the airport and the types of passengers providing footfall in and around those facilities.

Figure 3.6: Heathrow Airport – Passenger nationality mix per terminal, Jan-Sep 2016

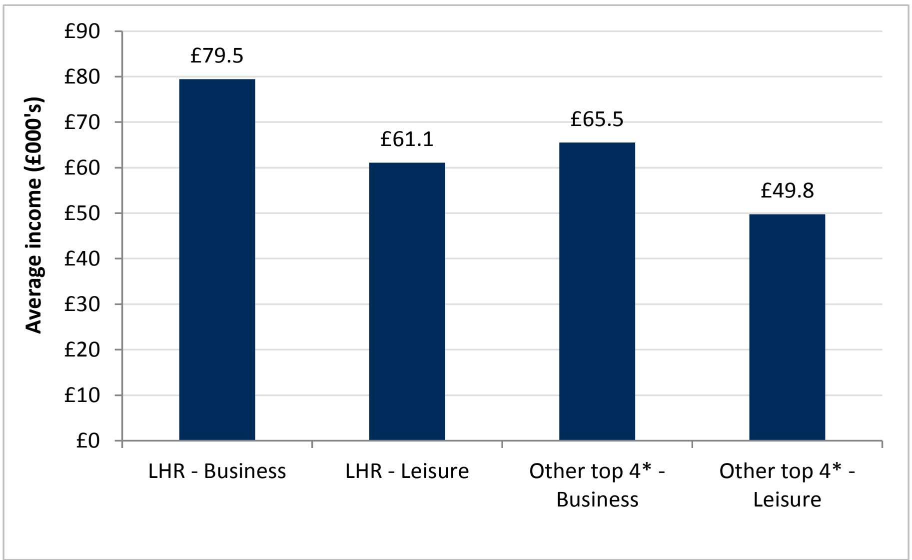


Source: HAL

3.14 The survey data shows that Terminal 4 is the most dependent on UK nationals, accounting for 40%+ of its passenger mix. In contrast less than 30% of the passengers using Terminal 2 are nationals of the UK. There are also distinct differences between the terminals in the composition of their foreign nationality traffic.

3.15 In addition to nationality characteristics, spending power can also be supported by the wealth of passengers using the airport. On average Heathrow's passengers have higher income levels than those at other leading airports in the UK.

Figure 3.7: Average income of passengers at top 4 UK airports, 2015



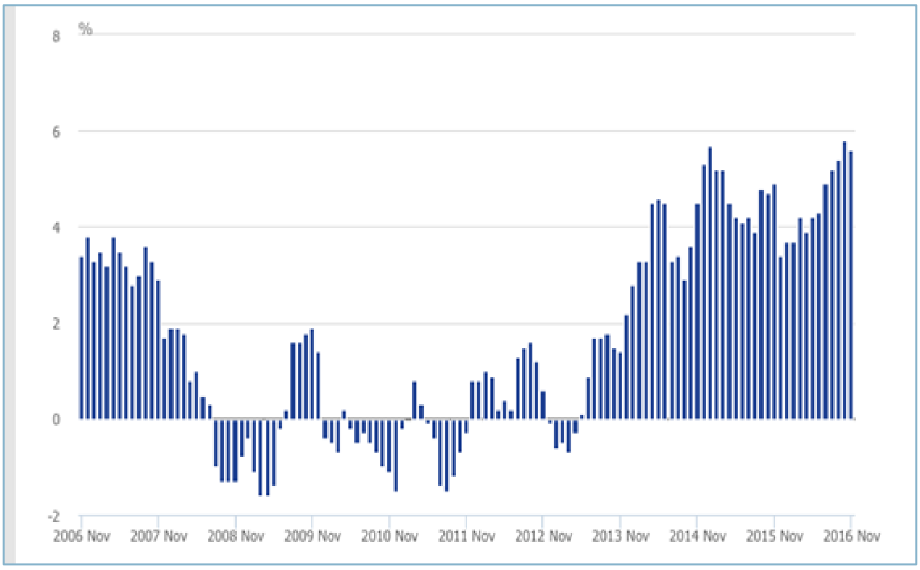
Source: CAA

Note: * average of Gatwick, Stansted and Manchester

UK High Street trends

3.16 Heathrow's passenger demographic is influenced by global macroeconomic trends as well as those in the UK. Nevertheless, it is helpful to consider wider UK High Street retail sales trends and the background they may provide to historical movements in sales at Heathrow.

Figure 3.8: UK retail sales growth trends – 2006-2016



Source: ONS

3.17 ONS data for the period 2006-2016 indicates that there have been three distinct periods over the past 10 years in which UK retail sales trends have moved in different ways:

- Autumn 2006 - Summer 2008: retail sales volumes experienced continuous growth. Growth in inflation was lower than average weekly earnings, providing rising real earnings which in turn supported consumer spending. This was also supported by increases in consumer credit.
- Autumn 2008 – Summer 2013: Retail sales volumes fluctuated, with periods of increases followed by declines. UK economic growth was subdued in this period (which included the Global Financial Crisis as well as recession in the UK in 2012), and there was a substantial 20%+ reduction in consumer credit. Falls in real earnings also dampened the retail sales trend.
- Since summer 2013: There has been a significant pickup in sales volumes. Retail prices have fallen through much of the period (although there are signs they are starting to rise again now), and consumer credit has rebounded, coinciding with a reduction in the household savings ratio.

3.18 In summary, to the extent that wider UK retail sales trends impact on airport retail growth, they have been supportive during the Q6 period to date although it should be noted that only circa 37% of Heathrow's passengers are UK based.

Commercial space and layout

3.19 Most airports around the world operate with between 600-800m^2 per million passengers of retail space. This is not because it is the proven optimum but instead is a general consequence of the way airports are designed i.e. a terminal is designed to accommodate a certain number of parked aircraft, processing space is then required for all of the different passenger-facing areas such as check in and security and many other aspects of the operation and, in simple terms, what is left is available for retail and this is generally somewhere between 600-800m^2 per million passengers. It is rare to find an airport with too much retail space and we would certainly expect an airport such as HAL to future proof and build more space than the benchmark. We were told by HAL at Q6 that T2 could have been leased 2 or 3 times over due to demand from brands.

3.20 At the end of 2015 Heathrow was operating with 654m^2 per million passengers which is towards the lower end of the usual range of space per million passengers, and also below benchmark airports and the 1,000m^2 it could potentially sustain to optimise revenue.

3.21 To achieve space equal to 800m^2 per million passengers HAL will need to grow from 49,000m^2 total space to 60,000m^2 and around 75,000m^2 to achieve what we believe to be the optimum solution (1,000m^2 per million pax). It is difficult to see where this space could be developed ahead of the R3 Master-plan. These space constraints will most probably result in a negative impact on sales and revenue per passenger as passenger volumes increase with static space.

Table 3.1: Heathrow Airport – Retail space per million passengers

Terminal	m^2 per MPPA	Airside space as % of Total
T2	✂	✂
T3	✂	✂
T4	✂	✂
T5	✂	✂
Total	✂	✂

Source: HAL

3.22 Most airports are planning to operate with 85-90% of the total retail space located airside, recognising this as industry best practice, unless there are special local circumstances that require a larger landside offer. With the exception of T3, HAL's terminals are close to the benchmark although the significant shortfall in overall space is the key issue to be addressed with all terminals urgently requiring additional space.

3.23 The key commercial zone is located airside after security where most airports, again following industry practice, tend to allocate category space within the ranges set out below:

✂

3.24 The HAL airside space mix and sales per m^2 for these categories is outlined in the table below:

Table 3.2: Heathrow Airport – Airside mix and sales per m^2

Category	Mix % of T2 airside	T2 sales m^2	Mix % of T3 airside	T3 sales m^2	Mix % of T4 airside	T4 sales m^2	Mix % of T5 airside	T5 sales m^2
Duty Free	✂	✂	✂	✂	✂	✂	✂	✂
Shops	✂	✂	✂	✂	✂	✂	✂	✂
Catering	✂	✂	✂	✂	✂	✂	✂	✂

Source: HAL

3.25 In most cases Duty Free enjoys a much larger proportion of airside space than we might otherwise expect however, with total space being somewhere between 20-35% below benchmark it is understandable that Duty Free has been prioritised over other categories.

3.26 The shops sales per m^2 in T3 and T5 are reflective of the International passenger demographic using those terminals.

3.27 Catering has been constrained significantly and probably for the right commercial reasons but clearly requires additional space for customer service as well as unlocking un-tapped revenue.

3.28 The table below sets out some of the other KPI's across each terminal:

Table 3.3: Heathrow Airport – Retail KPIs per terminal, 2015

KPIs	T2 £	T3 £	T4 £	T5 £	HAL Total £
Spend per pax	✂	✂	✂	✂	✂
Revenue per pax	✂	✂	✂	✂	✂
Sales/m^2	✂	✂	✂	✂	✂
Revenue/m^2	✂	✂	✂	✂	✂
Margin %	✂	✂	✂	✂	✂

Source: HAL

3.29 As passenger numbers continue to grow ahead of airport expansion the challenge of affordability will make any infrastructure projects to increase space increasingly challenging to justify and deliver, this has been recognised by HAL and the airlines. There is therefore risk of HAL operating in an ever more space constrained environment over the next 5-10 years.

Pricing policy

3.30 HAL's price policy has always been a key driver of its Retail performance although there is evidence that the value proposition is at risk of erosion.

3.31 Following the abolition of Intra EU tax and duty free in 1999 the owners of HAL decided it was critical to the ongoing success of retail sales at all of its airports to continue offering tax free prices to all passengers regardless of where they were travelling. This enabled the airport to maintain one clear marketing message, reduce confusion and to be one of the fastest airports in Europe to return to pre 1999 sales levels post abolition.

3.32 HAL's current retail price policy is that all fashion and luxury stores offer full VAT savings (a discount of 16.66%) to all Non EU passengers. In addition, except for five brands, all other luxury and fashion stores offer full VAT savings for all passengers regardless of destination. There are also 3 further exceptions to this policy where Boots price in-line with their High Street stores, WH

Smiths price in line with their other UK Travel stores such as railway stations (Boots & WH Smiths have recently introduced a price threshold over which Non EU Passengers are able to purchase at a tax free price) and Dixons follows its High Street price while guaranteeing its prices are lower than the web prices of Amazon, John Lewis and Argos. It also offers to pay double the difference if a shopper finds an item cheaper on those sites (HAL has carried out extensive research with Dixons which has shown the key value proposition is all about defeating the online retailer rather than the tax free message and, since moving to this proposition they have stemmed the erosion of sales from online competitors). It is important to note that many of the products sold by Boots and WH Smiths are exempt from VAT (books, magazines, newspapers, certain sandwiches, biscuits, pharmacy and healthcare products).

3.33 Products normally subject to excise duty such as whisky, vodka and cigarettes can only be sold at duty free prices to passengers travelling outside of the EU. The duty free operator benchmarks its prices against the UK High Street and for EU passengers liquor is sold as per its contractual obligations with HAL and, where there is a UK High Street equivalent, benchmarked against it.

3.34 ✂ There is also pressure from Global brands to equalise prices across the World to ensure there is not a favourable price advantage within the UK versus other geographical regions.

3.35 The price policy at HAL is owned by them and concessionaires are required to adopt the policy as part of their contractual obligations. HAL uses independent companies to audit shop prices which generally meet 100% compliance, in situations where stores do not comply the prices are corrected swiftly.

3.36 A discount of at least 16.66% on most retail products provides a huge incentive for passengers to shop and buy while travelling through the airport, any dilution to this offer would undoubtedly impact negatively on sales and revenue. Many UK airports have considered moving away from tax free pricing but in most cases have determined it to be the best policy as has HAL.

3.37 While tax free savings are incredibly important in driving retail sales and revenue, during our interview with WDFG it stressed how important destination pricing has become, particularly in a context where consumers are more savvy than ever before and have the ability to check competitors' prices in real time via their mobile phone – passengers will shop at the airport where they can get genuine savings and the best deal. As a consequence, there must be a clear and genuine price policy which also recognises the need to price competitively with International destinations, tax free pricing is simply the basic hygiene factor. HAL believe the greatest risk to erosion of their value proposition is the increasing transparency of International pricing.

3.38 While pricing is clear in all stores, HAL promotes a combination of value and service to its passengers rather than overtly focussing on price at an airport level.

Impacts - Exchange Rates

3.39 HAL and World Duty Free Group have both pointed to the recent impact of exchange rate movements on sales.

3.40 The potential impact of these movements on per passenger sales is illustrated in Figure 3.9. The period 2012-2015 was marked by a gradual decline in sales per passenger which generally coincided with appreciation in the value of sterling against major world currencies led by the dollar and euro. At

September 2016 YTD sales per passenger had risen by over 7% on 2015 levels, against a background of significant depreciation in sterling since the Brexit vote.

3.41 Media reports have also pointed to the opportunities for enhanced sales in the luxury goods market post-Brexit, as illustrated in a recent Sunday Times (January 15th 2017) article: *"Burberry is expected to report a sales rise as it continues to benefit from bargain-hunting tourists drawn to Britain by the weak pound''*. WDFG had also mentioned to us the floating customer type who travel to the countries where they can get the best deals.

Figure 3.9: Heathrow Airport – Index of retail sales per passenger vs. leading exchange rates

✂

Source: HAL, OANDA

Note: * shopping defined as sales from Duty & Tax Free and Specialist Shops. Sales per passenger in 2015 prices.

Impacts – Airline moves

3.42 In recent years Heathrow has undergone a large number of airline moves, designed to support the introduction into operation of Terminal 2, and to more generally achieve a good balance and allocation of passenger demand to the capacity available in the respective terminals.

3.43 ✂

3.44 The full list of airline moves at Heathrow since 2012 is as follows:

Table 3.4: Heathrow Airport – recent airline moves

		To				
	Terminal	T1	T2	T3	T4	T5
From	T1		United (6/14) Germanwings (10/14) Swiss (10/14) SN Brussels (10/14) Croatia Airlines (10/14) LOT (10/14) Air New Zealand (10/14) Asiana (10/14) South African (10/14) TAP (10/14) Icelandair (5/15) Aer Lingus (7/14) Aegean (7/14) Little Red (9/14)	US Airways (6/14) TAM (5/15)	Transaero (10/14) El Al (4/15)	BA (10/14, 6/15)
	T2					
	T3		Air Canada (6/14) Air China (6/14) ANA (6/14) Eva Air (7/14) Thai (8/14) Turkish (8/14) SAS (9/14) Singapore (9/14) Egyptair (9/14) Ethiopian (9/14) Lufthansa (10/14) Austrian (10/14)		Turkmenistan (7/15)	Iberia (3/12)
	T4			Delta (4/14, 10/14, 9/16) Sri Lankan (7/14) Philippines (10/16)		
	T5			BA L/H (10/15)		
	New entrants		Avianca (7/14)	Garuda (3/16)	China Southern (6/12) Aeromexico (12/12) Vietnam (3/15) Oman Air (4/16)	

Source: HAL

Note: Numbers in brackets denote month and year of move

Impacts – Tobacco

3.45 Statistics shared with us by HAL demonstrate that per passenger Tobacco sales fell following implementation of the Tobacco Display Act in 2015.

Table 3.5: Heathrow Airport – Tobacco sales per passenger (nominal)

Year/Period	Tobacco sales per passenger (£)
2014	✂
2015	✂

Source: HAL

Note: figures are calendar year totals

3.46 While the recent legislation has contributed to the further decline in Tobacco sales and revenues, this is part of a much longer trend which started in the late 1990s, and, with some exceptions, has resulted in year-on-year declines in tobacco sales at Heathrow through much of the period since then.

Figure 3.10: Heathrow Airport – Tobacco sales (2015 prices)

✂

Source: WDFG, HAL

3.47 Key legislative and other events influencing tobacco sales in this period have included:

- 1999: EU Duty Free abolition
- 2002: Tobacco Advertising and Promotion Act
- 2004: EU Enlargement (10 countries; plus Romania and Bulgaria in 2007, Croatia in 2013)
- 2015: Tobacco Display Act implementation at Heathrow
- Plain packaging will be enforced on May 20 2017 and HAL expect this to have a material impact on sales and revenue. WDFG are expecting sales to decline. ✂

e-commerce (Retail)

3.48 In the UK the share of total retail sales via e-commerce has increased from 13.5% in 2013 to 15.2% in 2015 and is forecast to have reached 16.8% when figures are released for 2016 (source: Centre for Retail Research). By contrast retail e-commerce sales at HAL account for less than 1% of total sales ✂

3.49 This is a conundrum given that consumers are experiencing online shopping as a feature of their everyday lives, with deliveries to home, the office or a collection point of their choice through companies such as Doddle. One might reasonably expect air passengers to demand a similar level of service while travelling to what they experience at home, perhaps with delivery to destination hotel or collect with their luggage at the reclaim belt.

3.50 E-commerce is unlikely to have had a major impact on HAL revenues positively or negatively in recent years and, is not expected to impact materially over the next 3-5 years. HAL believe it is critical for them to stay abreast of consumer shopping behaviour and that e-commerce should be a core capability of their management team however, at this stage they believe the benefit to sales will be low and its role will be to capture customer data that will enable targeted marketing and, play a key role in under-pinning HAL's overall proposition.

3.51 As with High Street stores, airport shops will always have a role to play in the shopping process, whether it be impulse, self-treat, gift for others; the remaining challenge is finding a way for e-commerce to make a material difference, delivering ease and convenience of shopping for travellers.

3.52 Currently HAL offer a range of customer services which are in whole, or in part, facilitated by e-commerce and support the generation of sales and revenue: Shopping Collection/home delivery, Personal Shopper, Reserve & Collect, Terminal Shopping Transfer, Heathrow Rewards and Heathrow Shopper Promise which are communicated via **www.heathrow.com**.

3.53 It would be a risk for HAL not to continue investing in e-commerce as they would cease to fulfil customer expectations and they will find other ways (and channels) to shop. HAL are working on and investing in new capabilities such as a Catering pre-order app due to launch in Q2 2017 and new ways to promote retail and other airport services.

Sales Performance

3.54 Together the factors above will have combined to influence the volume of sales achieved in the retail concessions operating at Heathrow.

3.55 In overall terms sales levels at HAL's retail concessions fell in the early part of Q6, led by a substantial fall in Bureau sales. Excluding Bureau there was no material real change in Retail sales between 2013 and 2015.

Figure 3.11: Heathrow Airport – Retail sales 2013-2015 (2015 prices)

✂

Source: HAL

3.56 Taking into account September 2016 YTD trends in sales per passenger, Bureau sales have continued to fall, but otherwise 2016 has seen increased levels of sales per passenger in the key segments of Duty and Tax Free and Specialist Shops. The recent depreciation of sterling after the Brexit vote may have been a contributory factor to this.

Figure 3.12: Heathrow Airport – Retail* sales per passenger 2013-2016 (2015 prices)

✂

Source: HAL

Note: *excludes certain 'other Retail' categories

Category Mix & Contractual margins

3.57 ✂

Table 3.6: Heathrow Airport – Recent % margins in Retail

✂

Performance versus Q6 Settlement

Results - Retail

3.58 Taking into account retail expenditure, cumulative net Retail revenues per passenger have been relatively close to the CAA forecast over the course of Q6 (actual £5.45, forecast £5.49).

Table 3.7: Heathrow Airport – Retail revenues cumulative performance, Q6 to end of 2015 (2015 prices)

	Apr – Dec 2014			2015			Q6 Cumulative Apr 2014 – Dec 2015		
Category	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**
Revenues									
Duty & Tax Free	111	102	-9	155	128	-27	266	230	-36
Airside Specialist Shops	69	73	3	99	100	1	168	173	4
Bureau	35	37	2	50	53	3	85	90	5
Catering	28	31	3	41	45	4	69	76	7
Other Retail	67	75	7	93	113	20	160	188	27
Sub – Total	**311**	**317**	**6**	**438**	**439**	**1**	**749**	**756**	**7**
Retail expenditure	-21	-18	3	-28	-17	11	-49	-35	14
Net Retail Income	**290**	**299**	**9**	**410**	**422**	**12**	**700**	**721**	**21**
Per Passenger									
Duty & Tax Free	2.00	1.77	-0.23	2.15	1.71	-0.45	2.09	1.74	-0.35
Airside Specialist Shops	1.25	1.26	0.01	1.38	1.33	-0.04	1.32	1.30	-0.02
Bureau	0.64	0.65	0.01	0.69	0.71	0.01	0.67	0.68	0.01
Catering	0.51	0.54	0.04	0.57	0.60	0.03	0.54	0.58	0.03
Other Retail	1.22	1.30	0.08	1.29	1.51	0.22	1.26	1.42	0.16
Gross Retail Income/Pax	**5.62**	**5.53**	**-0.09**	**6.08**	**5.85**	**-0.23**	**5.88**	**5.71**	**-0.17**
Net Retail Income/Pax	**5.23**	**5.21**	**-0.02**	**5.69**	**5.63**	**-0.07**	**5.49**	**5.45**	**-0.05**

Source: HAL Regulatory Accounts

Note: Results for 9 months ending December 2014 rebased to 2015 prices (RPI)

3.59 In their respective 2014 and 2015 regulatory accounts HAL made the following comments that are helpful in understanding some of the variances between actual and forecast performance:

- 2014:
  - Duty and Tax Free underperformance versus CAA forecast was attributable to this being the sole line in which the CAA revenue stretch was applied.

  - Within Retail this was offset by the over-performance of Airside Specialist Shops, Bureau and Catering. These areas were driven by increased passenger spends in the Terminal 3 and Terminal 5 shops, and a revised commercial agreement and good performance in Terminal 2.
  - Other Retail also over-performed, supported by greater demand and higher transaction values in Car Rental, and complemented further by growth in revenues from Advertising and Telecommunications.
- 2015:
  - Most of the comments provided in the 2014 regulatory accounts were repeated in 2015.
  - Additional comments included:
    - Underlying Retail performance broadly in line with forecast.

3.60 More specific commentary provided to us by HAL includes:

Table 3.8: Heathrow Airport – Q6 Retail revenues performance commentary

Category	HAL commentary
Retail – Duty & Tax Free	• T5 main store refurbished and reshaped to facilitate opening of Chanel & LV luxury stores, no additional space, completed 2015. • T4 main store development increased space and frontage of store offset by closure of Beauty Studio and Chocolate Box stores. Broadly same space completed 2016.
Retail – Airside Specialist Shops	• Price and value continue to be key drivers of performance even within the area of luxury goods. Luxury performance has been aided by the value offered versus other locations (full VAT discount) together with fluctuations in the currency. Sterling devaluation since Brexit has had a significant benefit on some specialist shops sales but the outlook for 2017 is uncertain. Boots, WHS & Dixons have been negatively impacted by the 'boarding card challenge' which started in the summer of 2015 and which relates to media reports that these companies were taking boarding card details from all passengers so as to obtain the VAT saving from HMRC on Non EU passengers, however without selling to passengers at a tax free price. • There remains a rolling programme of capital investment in retail areas in many cases driven by "operational" necessities. Whilst this has not added significant amounts of space, it has allowed a re-definition of the retail portfolio to create an improved mix of stores and environment. • The T5 luxury project was completed in 2015 with remaining works from a category perspective completed in Oct '16. Terminal 4 has had significant development this year and this will be completed first quarter of 2017. • Boots' T5 upper store relocated into a bigger space (to allow for security expansion). Two new landside Boots stores were opened in T4 & T5. T4 airside went from 1 store located in the luxury zone to 2 Boots stores in the high street area (luxury store closed). • Technology: Vodafone in T5 landside closed to make way for BA fast track. HAL opened a new additional Dixons store in T2B, in Q2 2016. HAL also introduced a number of tech vending machines around the terminals, with mixed results. A new deal was struck with Sim local to provide Sim vending machines, providing a better proposition.
Retail – Catering	• Numerous refurbishments to date and a number of brand changes. Lots of focus given to the picnic range. • Kids Eat Free offer has grown. • Completion of T5 Catering areas – Caviar House, Itsu reinstated. Starbucks relocated to a prime location. Pret currently being refurbished (completion due end of Jan 2017).
Retail – Bureau	• In the last 5 years have had Amex, Thomas Cook and Moneycorp as secondary partners all who have resigned contract within 2 years of commencement. • Walk up bureau transactions continue to decline by at least 6% a year with no indication of this slowing down. • UK is most mature market in world for pre-order currency and adaption of money cards.
Retail – Bookshops	• WHS will have been impacted by the boarding card challenge which started in the summer of 2015 and the 2 new Boots landside stores. A new book shop opened in T5. • T4 stores have been reconfigured. • T3 transfer store closed Q3 of 2016. • Focus on standards. Merchandise range has been reviewed leading to a number of health and beauty lines (distress items) being removed. Introduction of a 99p bottle of water (early 2016).
Retail – Advertising	• Heathrow remains the only UK airport with a media business of any scale. Continued investment in the assets and demands from international brands has enabled HAL to continue to sell inventory in a challenging worldwide market.
Retail – Car Rental	• Contract renegotiation increasing income. • Brand acquisition/consolidation which started a price war and diluted rate (and thus HAL income).

Source: HAL

Q6 Forecast Methodology - Retail

3.61 The methodology and assumptions used for Retail were based on the data provided by HAL, the ✂ econometric model used by HAL, and stakeholder opinion. HAL's key assumptions for their Q6 income forecast fell into 3 categories although in headline terms, growth from concessions was forecast to be much slower albeit with robust growth in Specialist Shops, offset by flat real Duty Free income where performance was assumed to be impacted by effects such as TDA's and the opening of T2. Other concessions revenues were expected to achieve modest growth:

- ✂

3.62 While airline stakeholders believed Q6 income should be 1-2 % higher than forecast by HAL, retail stakeholders were more pessimistic, largely due to structural changes in sectors such as bookshops, bureaux de change as well as the ongoing decline in tobacco.

3.63 Further recommendations generated by SDG's review of commercial revenues included:

- Duty Free: we assumed a lower net revenue impact of 12-20% from the implementation of the Tobacco Display Act in 2015 compared with HAL's forecast of 40%.✂. We did not assume any ban on duty free tobacco during the lifetime of Q6 while HAL had assumed a full ban by 2018/19. We also proposed a 1% increase in the duty free concession margin over the Q6 period ✂.
- Advertising: we believed there should be a stretch in advertising income equal to £500K per annum over and above the HAL forecast. ✂
- Other Categories: we believed projections for the other retail categories were plausible.

3.64 There are many factors that can impact on retail revenue which are outside of the airport's control. We have demonstrated the impact of exchange rates, particularly the weak or strong euro relative to the pound where sales per passenger declined 2013-2015 when the euro was weak and then improved sharply when the euro strengthened against the pound. The strength of the dollar against the pound is also a key factor that impacts on retail revenues at HAL.

3.65 ✂

Lessons for the H7 process

Stakeholder opinions

HAL

3.66 HAL would like to find better ways of working with the airline community to deliver revenue growth. HAL believe that generally they and the airline community have worked well together but on occasions commercial opportunities have been slowed or even halted due to airlines looking at them primarily from an operational perspective and not with the single till benefits in mind.

3.67 A view that HAL believes is shared by the airlines is that it would be good to develop, in advance of H7, clear rules on the level of engagement required for different types of projects so that time is spent reviewing the important initiatives that have a potential impact on others while the more straightforward projects are allowed to follow an easier and faster governance route.

3.68 HAL believe e-commerce would be a good area in which to work more closely with the airlines. There would be plenty of opportunities for HAL and airlines to collaborate on data sharing in order to promote products and services to passengers.

Airlines

3.69 Airlines recognise the importance of achieving the maximum value from capital investment in H7, in the context of potential timescales for airport expansion. Commercial revenues are an important component of the Single Till in order to keep charges down, maintain passenger satisfaction, and to respond to the increasing opportunities for digital interaction with customers and to explore alternative concepts including alternative delivery and distribution arrangement for the shopping experience. Airlines believe there may be opportunities to combine their access to the passenger with HAL's exceptional retail capabilities.

3.70 In addition to e-commerce the airline community have outlined a number of other areas where they believe the formal H7 review could improve the overall process as well as the outcome, this largely relates to visibility of reports and information that will inform the process:

- How successful have the Q6 projects been – Post Project Appraisals to compare planned Return on Investment ('ROI') with the actual performance as well as impacts on service and passenger experience e.g. Impact from opening T2, Impact from opening escalator in T5 South and the recent retail developments in T5;
- Detailed review of commercial space to define the optimal amount of retail space going forward. To include a full review of Satellite buildings outlining how they could be commercialised;
- Review of advertising performance and opportunities for growth;
- An outline of HAL's new ideas for growing revenue;
- Impacts from R3 during H7; and
- Brexit impacts.

Concessionaires

3.71 WDFG point to the decline in Tobacco sales, which they believe is an underlying long term trend, in addition to the recent reduction in sales forced by the Tobacco Display Act.

The role of traffic

3.72 Given the dependence by the various parties (HAL, airlines, CAA) on passenger forecasts as a key driver of commercial revenue projections, it is desirable to have an accurate assessment of traffic prospects.

3.73 The traffic forecasts were considered at length by HAL, airlines and the CAA ahead of the Q6 Determination, at that point against the backdrop of a large over forecast of traffic volumes in Q5. During Q6 to date that position has been reversed, with actual passenger volumes running significantly ahead of forecast.

3.74 Our report does not focus on the detail of the traffic forecasts used, but we anticipate that HAL, airlines and the CAA will take into account the lessons learned in both Q5 and Q6 when assessing prospective passenger volumes for H7.

Best practice from other airports

3.75 While arguably HAL is the benchmark across most areas of airport retail there are different business models adopted by different airports:

Table 3.9: Alternative airport retail business models

Fully outsource to specialists with competition in all categories	Fully outsource to Master Concessionaires across core product categories	Self-manage some or all of the commercial operation
• Similar to a Shopping Mall • Concession contracts % rent & minimum annual guarantee • 1 x Duty Free Operator for core Duty Free • Individual Concessions for all shops • 3 x main Catering Operators + some singles • 1-3 Bureaux Operators • 1 x News & Books Operator • 1 x Pharmacy operator • 1 x Technology operator • 1 x Advertising operator • Requires large team - contract management	• Concession contracts % rent & minimum annual guarantee • 1 x Retail contract • 1 x Catering contract • 1 x Bureaux contract • 1 x News & Books contract • 1 x Pharmacy contract • 1 x Advertising contract • Requires smaller but higher calibre team to handle fewer bigger contracts	• Similar to a Department Store • Buy and sell products • Directly manage the shops and restaurants, might also include Catering franchises • 1 x Bureaux contract • 1 x Pharmacy contract • Directly manage in-house advertising • Requires large in house team covering all areas of the retail operation • Airport takes all of the profit and all of the risk

Source: Steer Davies Gleave analysis

3.76 While airports often reflect a hybrid of the above models, the three set out above are reasonably typical.

3.77 For the past 20 years HAL has always fully outsourced its retail operations to individual specialists and then employed a team to ensure the best mix of operators is selected, and made sure they deliver to their contract as well as optimising sales and revenue. As a general rule, specialists deliver higher sales than generalists as they are highly focused on their brand/concept and ensure the best possible customer experience.

3.78 Airports such as Brussels, Paris and Istanbul operate with master concessionaires across the core product categories, albeit fashion is operated through a joint venture between the airport and Lagardere retail at Paris CDG, and at Brussels they are starting to introduce some individual retail operators as their terminal capacity increases. These contracts usually provide higher margins as a consequence of greater operating efficiencies, but lower sales than specialists. Although we have referenced larger airports, this model is more common at smaller airports as they do not have the volume of passengers for it to be profitable for independent specialist to operate.

3.79 Dubai and Doha are good examples of airports which successfully self-manage their retail and catering operations in house (some catering outsourced), this was also the model at Abu Dhabi until 2008 when they decided, and later proved, that it would be more profitable to adopt the individual specialist operator model.

3.80 Dublin Airport Authority through its in house operator ARI is a good example of a hybrid model whereby they run their own duty free but work with individual specialists for most of the shops and catering.

3.81 While there could be merit in reviewing HAL's relationship with airlines and retailers in response to the opportunity presented by e-commerce, we do not think that a fundamental shift from the current outsource model would materially benefit revenue and customer experience at HAL.

3.82 Airports are recognising the change in consumer shopping behaviour off airport, whereby purchases can be made on-line as easily as visiting a store, and in many cases on-line purchases can now also be made in store.

3.83 Similarly, consumers can take goods with them, order for home delivery, or arrange collection. Ultimately consumers can tailor the method of purchase and fulfilment to suit their particular needs. This has all been facilitated by the development of E & M commerce and at some point will begin to have an impact on airport retail. Whether this impact is positive or negative will depend on how airports respond and the emergence of any disruptors in the sector i.e. the airport retail equivalent of Uber or Airbnb.

3.84 From the perspective of airport shopping, the passenger interfaces with three parties as part of their airport travel experience (i.e. airline, airport, and retailer). As a general rule these parties work independently because their business models are not aligned. The passenger does not care about these types of issue, and going forward they will only care about enjoying a smooth shopping experience, comparable to that which they experience in their local market. If airlines, airports and retailers could work together as a collective and service the passenger at each touch point in their journey, sales could potentially develop to a greater extent than might otherwise be possible. It is encouraging that the airlines, HAL and WDFG have all identified working more closely together as an opportunity.

3.85 There is already evidence in the industry of duty free operators and airports developing agreements where risk and reward is shared through Joint Venture agreements e.g. Societe de Distribution Aeroportuaire ('SDA') the main retailing JV between Aeroports de Paris and Lagardere Travel Retail covering the Paris airports. However, we are not aware of any tri-party JV's that include the airlines.

- Gebr Heinemann, the World's 5th largest duty free operator by sales in 2015, is possibly the most developed in terms of e-commerce and, with airport JV agreements already in place with ATU and TAV Airports in Turkey, Schiphol Airport Retail in Amsterdam and, from January 1st 2017 Fraport in Frankfurt.
- In a recent statement about the Fraport JV, one of Heinemann's Executive Directors stated that "e-commerce was among the driving forces behind the move" and "this is a new age, other airport partnerships will require more flexibility and attention to consumer needs than ever before".
- Heinemann also made reference to the traditional concession agreements and the lack of flexibility to drive sales because of the minimum guarantees "the future is in trial and error and moving from trial to success with new ways of doing things. There will be new models in the business and it will be a big issue for the industry in the coming years".

3.86 Both Heinemann and Sunrise Duty Free (Sunrise has recently announced a strategic partnership with Tencent, a Chinese internet services company) have recognised the value of data collection from e-commerce and, in the case of Sunrise, the opportunity to develop a virtual shopping mall.

3.87 Sunrise stated it has entered into a long term alliance with Tencent designed to take advantage of the fast-growing but equally fast-changing airport consumer market. The goal, says Sunrise, is to use social media platforms to excel as an online to offline shopping provider. It aims to embrace and blend the best of the e-commerce channel with the attractions of pure travel retail offers.

Methods to increase revenues from existing sources

Stakeholder suggestions - HAL

3.88 As a general principle HAL support closer collaboration with the airline community to develop commercial revenues, building upon the good work underway on dwell time.

3.89 ✂

3.90 The old connections centre in T3 is currently being redeveloped and will deliver a small amount of additional retail space around the middle of 2017, otherwise there are limited space opportunities within the existing terminal buildings.

3.91 Satellite buildings could be developed, ✂

3.92 Using new technology and customer data to better target passengers with information that is relevant should have a positive impact on sales and revenue. While this is not expected to be material, at least in the near term, HAL believe it is critical to underpinning their existing revenues and in ensuring they keep up to date with customer's expectations and needs.

Stakeholder suggestions - Airlines

3.93 Our discussion with the airlines centred on the work needed to be undertaken in order to establish opportunities as outlined earlier in this section of the report.

Stakeholder suggestions - Concessionaires

3.94 ✂

Opportunities for dwell time improvements

3.95 From 2013 to 2016 the general pattern has been for departure lounge dwell time to reduce (at Terminal 3 by almost 14 minutes), albeit they have increased slightly at Terminal 2.

Table 3.10: Heathrow Airport – Minutes spent from coming through Security to leaving main shopping area

Terminal	2013	2014	2015	2016
Terminal 2	n.a	69.4	70.2	71.2
Terminal 3	96.6	92.3	82.8	82.8
Terminal 4	75.8	74.8	72.6	74.0
Terminal 5	80.0	79.7	73.6	75.6

Source: HAL

3.96 It is probable that dwell time in Terminal 2 has benefited from being a new terminal. In Terminal 3 the reduced dwell time has coincided with the opening of Terminal 2 and the transfer of flights, clearly having a reducing impact overall.

3.97 While there are no concrete benchmarks demonstrating how longer dwell can lead to higher sales, due to the many variables of operating at an airport, we nevertheless believe that longer dwell time can reasonably be expected to enable longer shopping time for those that wish to shop, and therefore can support sales growth.

3.98 In most cases time after leaving the departure lounge has decreased slightly, (so for the same overall time at the airport, this would imply longer lounge dwell-time), but with the exception of Terminal 2 this has not yet resulted in longer dwell time in the departure lounges.

Table 3.11: Heathrow Airport - Minutes spent between leaving the departure lounge and expected time of flight Departure

Terminal	2013	2014	2015	2016
Terminal 2	n.a	69.1	64.4	66.9
Terminal 3	65.2	66.4	65.5	65.2
Terminal 4	75.2	73.2	72.4	73.1
Terminal 5	63.3	64.4	64.5	62.9

Source: HAL

3.99 HAL and the airlines worked together throughout 2016 on fine tuning dwell time and call to gate processes in order to improve passenger experience and revenue. This was rolled out at the end of 2016 and HAL will continue to monitor the benefits over the coming months.

Means to increase revenues from new sources

Stakeholder suggestions - HAL

3.100 T2 Phase 2 – subject to delivering high quality commercial space, T2 could deliver the required extra commercial space to drive revenue growth. However, such a development is unlikely to be open until 2025-2026.

3.101 ✂

Stakeholder suggestions - Airlines

3.102 The opportunity to increase revenues by leveraging the use of e-commerce along with HAL's retail expertise and the airlines access to the passenger was discussed at length. Other areas of opportunity are expected to fall out of the reviews requested by airlines earlier in this section of the report.

Stakeholder suggestions - Concessionaires

3.103 WDFG believe that Brexit could be positive for Heathrow as theoretically HAL and all other UK airports should be able to return to selling at duty and tax free prices to all Intra EU passengers. However, the economic model has changed significantly since intra EU Duty and Tax Free was abolished in 1999. Any agreement from HMRC will require changes in legislation to realise any opportunities. ✂

3.104 A return to duty free prices for ✂ intra EU passengers is expected to have a positive impact. ✂ Heathrow Airport has a strong non-EU passenger mix.

Challenges and opportunities

Retail space

3.105 Quantity and quality of space remains one of the key drivers of revenue at all airports and depending on which benchmark is selected, HAL is short of space in the order of 10,000 to 25,000m^2. ✂

3.106 It is clear there is no readily available space to find within the existing terminals which means the development of space pre-R3 could be a complicated and expensive process. Validation of the total space requirement would need to be evaluated in conjunction with HAL along with the mix of space by product category.

Brexit

3.107 Brexit could be a benefit to HAL through the increase in in passengers who will be eligible to shop at duty and tax free prices, subject to the necessary legislation being passed in a timely manner.

3.108 However a potential risk is that after leaving the EU, the UK automatically would become a Non EU destination for people flying in to the UK. This would mean that passengers flying to Heathrow from Europe would be able to shop at origin airports in the EU at duty free prices. If a solution has not by then been agreed with HMRC, HAL and other UK airports could be at a price disadvantage leading to a negative impact on sales and revenue.

ETRC views of key challenges facing the Industry

3.109 The ETRC is an industry association for the duty free and travel retail industry in Europe, serving the industry and its members to help create the right environment to allow the industry to achieve its potential and protect it when challenges arise. Key areas of current focus are outlined below:

- **Aviation Security – response to Liquids, Aerosols and Gels (LAGs) and Secure Tamper Evident Bags (STEBS).** No major changes to the current situation are expected in the next 5 years when the appropriate technology could be in place to accurately screen liquids. There is evidence of countries preventing transferring passengers from carrying liquids to their onward destination, for example there has been a recent ruling in India to this effect and, in Thailand a passenger travelling from the UK to Bangkok cannot then transfer on to Phuket with liquids purchased at a UK airport. This situation creates confusion, there is risk of sales staff not fully understanding the internal rules of particular foreign countries, and how these are changing. This ultimately creates confusion for the passenger and may result in them not purchasing on future trips due to risk of confiscation. Although ETRC feel the revenue impact from the liquids issue will be neutral, should more countries start banning liquids on particular routes for transferring passengers there could be a negative impact on liquor revenue.
- **Air Passenger Rights – securing the right of air passengers to carry airport shopping on board**. ETRC continue to lobby for airlines to allow passengers to take on board at least one bag of airport shopping for free in addition to their carry-on luggage. Cabin baggage is an issue particularly on short-haul flights due to lack of space, increasingly passengers are given the opportunity to put their cabin bags into the hold for free at the boarding gate, as airlines start to clamp down on cabin baggage. Ryanair announced in January 2017 that they are considering a return to the one bag only rule. This issue is growing but will only impact HAL if the full service airlines start to adopt anti-retail measures.
- **Consumer Information – protecting the industry around EU and national legislation relating to product labelling**. Requirements to provide product information in various languages could result in certain products no longer being available in travel retail, reducing choice. This is an issue for all product categories.
- **Alcohol – ensuring the responsible retailing of alcohol**. There is a growing issue with disruptive behaviour onboard aircraft, in part driven by inebriation. It appears to be an issue at certain UK airports and on certain routes. The industry is addressing this through a voluntary code of conduct.

- **Tobacco retailing in duty free – working with the authorities to find practical solutions that meet policy requirements while supporting the duty free sector**. Plain packaging will be introduced in May 2017, and while the impact is not yet known, it is believed that it will be less of an issue at regional airports where UK passengers recognise their brand and will be shopping for the same packets as they purchase in their local stores. However foreign passengers will be less used to plain packaging and may think the products are counterfeit.
- **Boarding Card & Pricing** – a code of practice has now been agreed between airports and retailers. It appears to be working, but media interest continues (although it may be unlikely to impact on revenue).
- **Brexit** – ETRC is already liaising with the UK Government, and considers that the best option is to return to the 1993 situation, which would be the same method as how UK airports sell to '3rd country' passengers today. As Article 50 was triggered in March 2017 the UK could leave the European Union in March 2019. At that point the UK could become a 3rd country, and passengers flying to the UK from the EU could again be able to buy duty free. However, in the UK current Excise and VAT regulations would need to change in order for passengers travelling from the UK to the EU to benefit from any return to Duty free shopping.
- Other issues:
  - What will be the impact on retail of low cost carriers serving long haul routes.
  - Growing number of duty free on arrival stores – this competes with duty free on departure shops, recently Russia and China have rolled out arrival shopping.

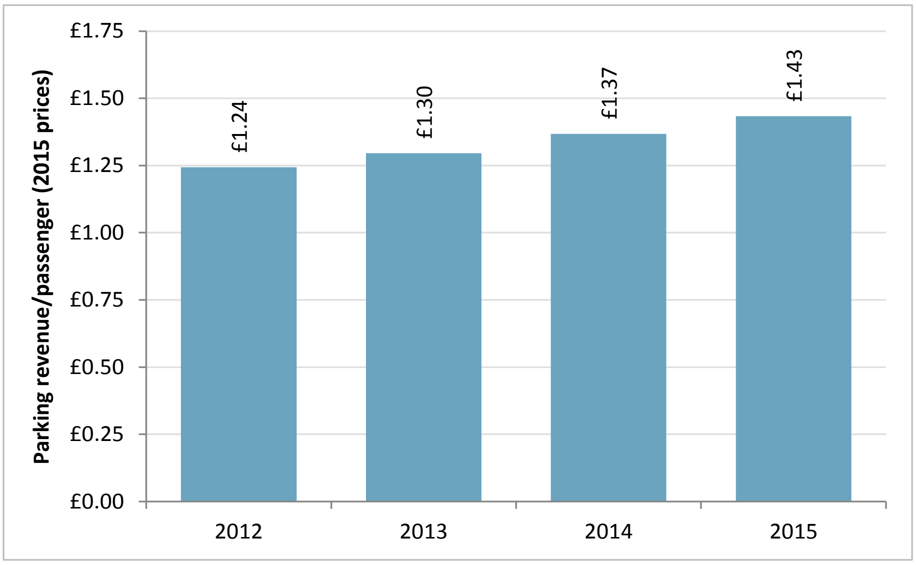
4 Car Parking

Recent performance trends

4.1 HAL's Car Parking activities generated revenues of £107 million during 2015.

4.2 Car Parking revenues are not reported separately in HAL's regulatory accounts. However, data shared with us by the airport operator indicates that per passenger revenues have been growing in real terms in the past few years.

Figure 4.1: Car parking revenues per passenger (2015 prices)



Source: HAL

Drivers of Car Parking performance

Passenger mix

4.3 The volume of non-connecting UK resident passengers can be an important influence on the number of users of an airport's public car parks as this is the group that in principle can use private cars to access the airport, and thus potentially use the parking facilities.

4.4 As shown in Table 4.1, the volume of passengers in this segment has grown early in the Q6 period:

Table 4.1: Heathrow Airport – Development of UK resident non-connecting traffic, 2013-2015

Year	Total passengers (m)	Of which: Non-connecting %	Non-connecting passengers (m)	Of which: UK resident %	UK resident non-connecting passengers (m)
2013	72.3	63.4%	45.9	55.0%	25.2
2014	73.4	64.8%	47.5	54.5%	25.9
2015	75.0	64.3%	48.2	55.1%	26.6

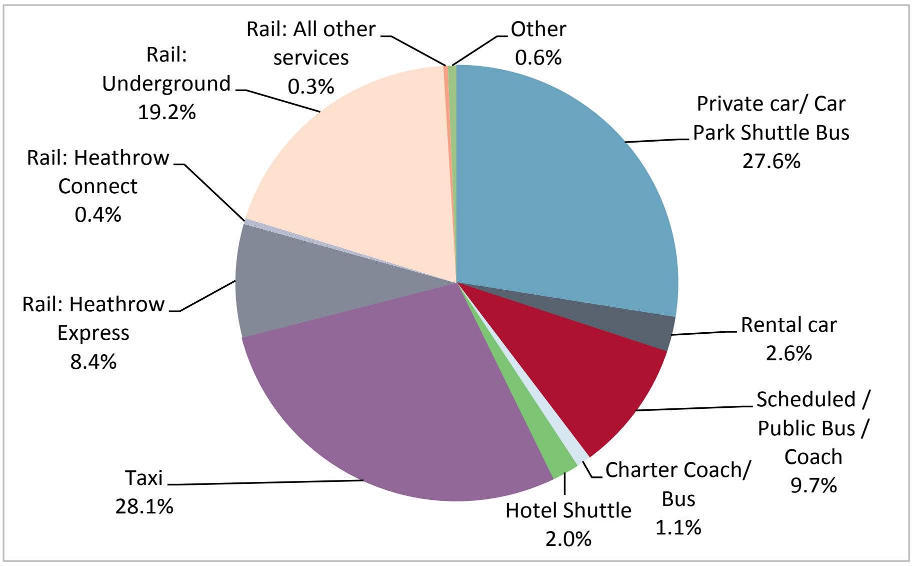
Source: HAL, CAA Survey

4.5 All other things being equal this trend can be expected to have assisted the development of parking revenues to date during Q6.

Modal share

4.6 Heathrow's non-connecting passengers use a variety of different means to access the airport as illustrated below:

Figure 4.2: Heathrow Airport modal split, Jan-Sep 2016

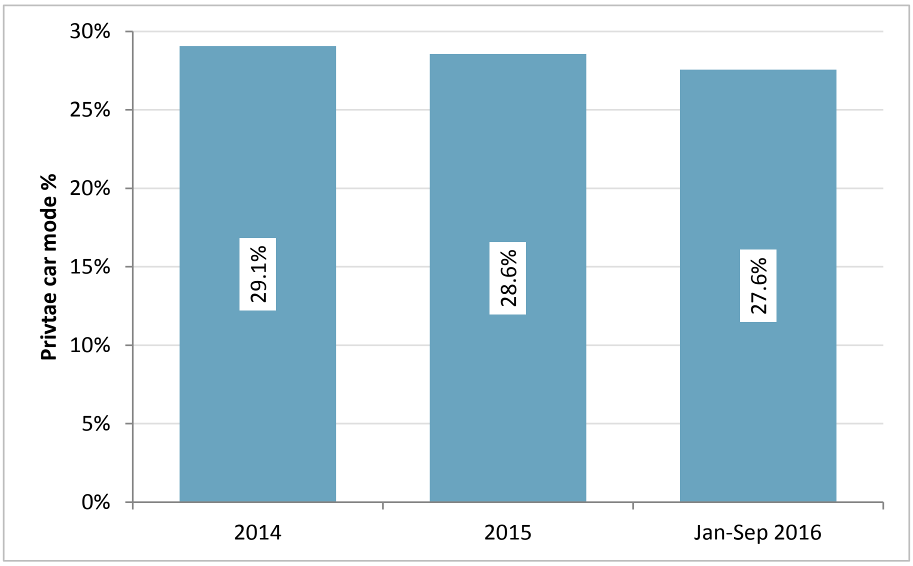


Source: HAL

4.7 In the year to September 2016 27.6% of the airports non-connecting passengers used a private car to access the airport. This group of passengers includes those using the public car parks as well as passengers who are dropped off/picked up at the airport on a 'kiss and fly' basis.

4.8 Data provided to us by HAL indicates that there has been some reduction in the proportion of non-connecting passengers using their own private cars to access Heathrow, reflecting HAL's commitment to increase the share of passengers using public transport to get to/from the airport.

Figure 4.3: % of passengers accessing Heathrow with a private car



Source: HAL

4.9 The equivalent passenger volumes represent the size of the market of users of HAL’s parking products:

Table 4.2: Heathrow Airport – private car users

Year	O/D passengers using private car (m)	% of non-connecting UK resident passengers
2014	7.50	29.1%
2015	7.56	28.6%

Source: HAL, Steer Davies Gleave analysis

Note: full year 2016 data not available

Competition

4.10 ✂

4.11 It should be noted however that many distributors and off airport operators have multiple brands with sometimes up to 4 or 5 brands belonging to the same company so it is difficult to accurately assess levels of off airport competition.

4.12 HAL currently provides Meet and Greet and Valet parking products to address off airport competition. Valet parking is a forecourt product and Meet and Greet is offered from the short stay car parks. Based on a court ruling in 2010, Purple Parking, HAL’s main off airport competitor, won the right to compete on an “equivalent basis” for its own operation and its IAPA members. Interestingly Purple Parking and the other off airport Meet and Greet operators then chose to operate from the car parks rather than the forecourts, as operationally it was more beneficial to them.

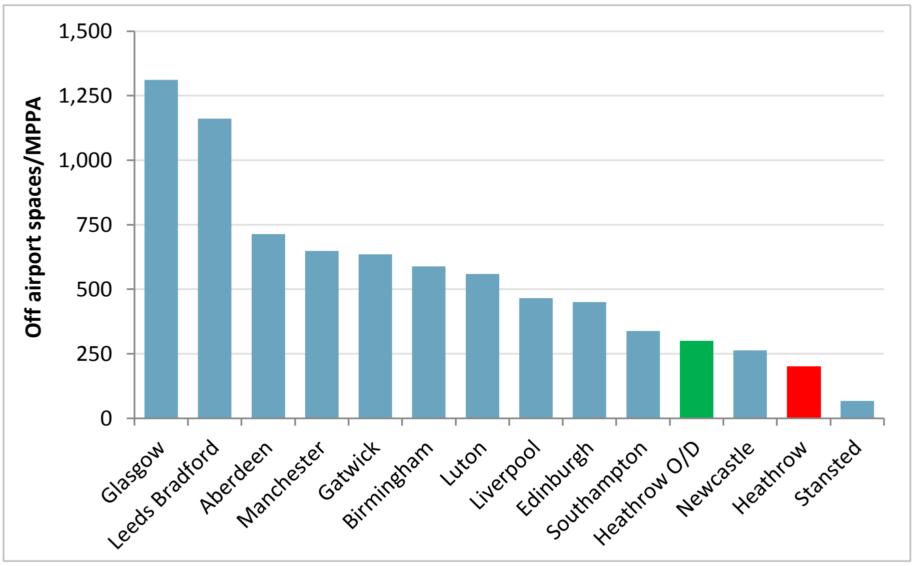
4.13 Access charges for off-airport commercial operators are levied by HAL for:

- Off airport bussed operations based on a vehicle movement charge (in line with the majority of UK airports);

- Forecourt permits; and
- Use of short stay car parks for off airport meet and greet operators at discounted rates relative to normal tariffs.

4.14 Figure 4.4 provides a UK airport comparison of off airport space provision.

Figure 4.4: UK airports – off airport parking spaces per MPPA



Source: Steer Davies Gleave analysis

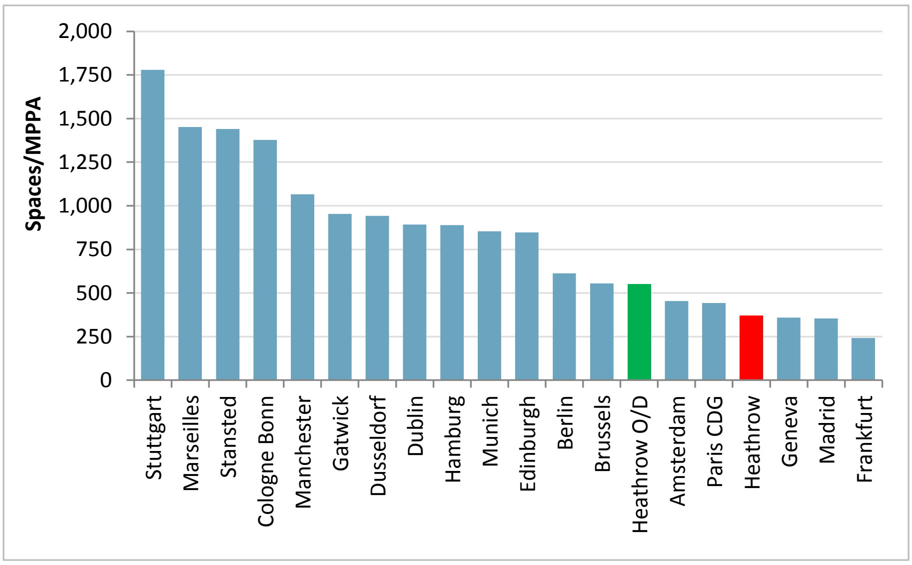
Note: Heathrow O/D excludes connecting traffic

Capacity

4.15 Additional capacity provided during the early part of Q6 included the new multi storey car park of circa 1,250 spaces at Terminal 2 and a further 800 spaces at Terminal 5 (Business) in February 2015. However, 800 Business Plus spaces were lost in order to develop the Authorised Vehicle Area to house the private hire vehicles on the northern perimeter road. Total public parking provision including valet storage now stands at 27,738 spaces.

4.16 Figure 4.5 shows how Heathrow's parking provision compares to that at other UK and European airports on a per passenger basis. At headline level Heathrow Airport has one of the lowest car parking space provisions per million passengers compared to other leading airports in Europe, and even when adjusted to exclude connecting passengers it can be seen that Heathrow is not among the forerunners in terms of parking capacity availability per MPPA.

Figure 4.5: Parking spaces per MPPA – Leading European airports



Source: Airport websites

Note: Values for 2013 except Heathrow

Transactions, Product trends and Pricing

4.17 Heathrow now has a wide range of products with the majority available for pre booking (www.heathrow.com for product details):

- Short Stay
- Business
- Long Stay
- Valet parking
- Meet and Greet
- Heathrow Pod Parking (T5 only)
- Heathrow Hotel and Parking
- Drop and Ride (T4 only)
- Motorcycle parking (free)

4.18 In 2015 HAL generated a total of £107.2m in revenue from ✂

4.19 Short Stay generated over ✂ in 2015, circa ✂ of total parking revenue with over ✂ transactions. Valet parking delivered a further ✂ with the remainder of parking revenue (✂) from long stay and business parking.

4.20 Valet parking accounted for only ✂ of the parking business (comparable with previous years) however with an average transaction value (ATV) of circa ✂ it is a valuable product compared with the average ATV from combined long stay/business parking of ✂. HAL's strategy is to ensure the Valet and Meet and Greet operations are operationally manageable and that yield is maintained.

4.21 Pre booking at HAL now accounts for ✂ of total parking revenues. The trend to pre-booking from roll up continues, however proactive yield management and pricing optimisation tools (supplied by Ideas) ensure maximum yields are maintained within a very competitive environment. HAL mainly distributes its pre booked products through its own “Advance” booking engine accounting for ✂ of all pre booking. Pricing for pre booking (sample period 12th-16th January 2017) currently offers a “Winter” proposition of £50 for the long stay product (serving T2 and T3 with bus transfer) representing the cheapest on airport product available. This compares to the off airport Purple Parking product of £54.95 (with bus transfer).

4.22 Additional branded products offered via stand-alone websites and distributed by other consolidators is now common practice at UK airports, for example MAG's Jet Parks products are now implemented at all of its airports and Park and Go at Aberdeen is providing more product choice competing directly with off airport operators

4.23 HAL has also introduced a second Airport branded product, Good To Go Parking (www.goodtogoparking.com) providing both Park and Ride and Meet and Greet services utilising on airport capacity and distributed by a number of consolidators. For the sample period 12 – 16 January 2017, (HAL’s special Winter Price Promotion), the price quoted was just £31.43 with bus transfer to T2. The Meet and Greet product for the same period was only £41.93. Both Good To Go products were cheaper than all products offered by other off airport suppliers and targeted at HAL’s off-peak price sensitive market (source: price comparison websites/consolidators for example airport parking shop, parking4less, holiday extras, APH).

4.24 It is unclear as to the impact of Good To Go on HAL's pre book business. HAL believes there has been some dilution rate at peak periods, although the level of sales is capped in order to mitigate any negative impact. HAL has observed negligible levels of dilution at off peak times where the product is targeted. It is clear however the Good To Go products are competitively priced and well received by customers, with 97% of customers prepared to buy the Good To Go products again (source: Revoo online customer feedback).

4.25 HAL has met its strategic objectives of lowering prices to new customers (based on previous research which showed 10 million passengers did not park on airport at Heathrow as it was considered too expensive). By introducing the budget priced Good To Go range of products and Meet and Greet parking HAL has introduced new, lower priced, parking products, and providing a choice of parking options better aligned to the requirements of its customers.

4.26 Focus by HAL on yield management has provided upsell opportunities by leveraging greater value from their most convenient and higher priced pre book products (short stay and valet) to improve yield. ✂

4.27 The short stay product at Heathrow has been enhanced with the addition of MSCP 2 in 2014. The quality of this product is at least equivalent compared to other airports, such as Stansted, Manchester and Gatwick, and arguably superior, with latest technology for payment and bay sensing to aid vehicle way-finding and provide the operator with real-time occupancy data, benefiting both the operator and HAL’s customer. Comparisons of short stay prices are set out below.

4.28 It should be noted Heathrow restructured its time bands (up to 2 hours) from January 2014, increasing the price of 30 minutes to 1 hour, eliminating the 1-1.5 hour time band and introducing a higher priced 1-2 hour time band. This structure has been maintained and is now in line with other airports and there are no plans by HAL to make any further changes to short stay tariff structures:

Table 4.3: Tariff Comparisons – Key UK airports

Time Band	Heathrow	Heathrow Fast Track T2 & T5	Gatwick	Gatwick Premium	Manchester	Stansted
0-30 minutes	£3.60		£3.50	£4.50	£3.50	£3.60
30-60 minutes	£6.70		£7.00	£9.00	£6.00	£7.20
1-2 hours	£10.80	£11.00 (0-2 hours)	£12.00	£14.00	£9.50	£12.40
2-3 hours	£13.40	£20.50 (2-6 hours)	£14.00	£18.00		
3-4 hours	£17.50	£46.50 (6-9 hours)	£18.00	£23.00	£18.00***	£22.00***
4-5 hours	£21.60	£67.00 (9-24 hours)	£21.00	£28.00		
6-9 hours	£26.80		£24.00	£33.00		
9-12 hours	£39.10		£38.00**	£48.00**		
12-24 hours	£50.50					
Each additional 24 hour period	£57.70		£45.00	£55.00	£40.00 (up to 24 hours)	£42.00 (up to 24 hours)

Source: Airport websites

Note: *T4 has been operating an experimental differential tariff since November 2013, with an am and pm peak tariff as follows (it is understood this is shortly to be suspended due to an airline change at T4) ** for 6-12 hours ***up to 4 hours

Table 4.4: T4 Short Stay tariff

Time band	AM peak	PM peak
0-30 minutes	£4.10	£4.60
30-60 minutes	£7.20	£7.70
1 – 2 hours	£11.30	£12.00

Source: HAL

Note: AM Peak = 06.00-08.00 hours; PM peak = 18.30-20.30 hours. Additional revenues for peak pricing generated incremental revenue to HAL of circa £100k per annum. The tariff differential between T4 and other short stay car parks had no impact on utilisation of the car park. All other time bands are the same as the CTA/T5 short stay car parks.

4.29 We understand that peak pricing generated incremental revenue to HAL of ✂. The tariff differential between T4 and the other short stay car parks had no impact on utilisation of the car park. All other time bands are the same as the short stay car parks in the Central Terminal Area (CTA) and T5.

4.30 The main comparison table shows Heathrow is in line with other major UK airports for stays of up to 2 hours. Heathrow has always had a higher up to 24 hour rate, originally to price out business users to the cheaper business car parks introduced during the late 1980s to address consumer pricing issues.

4.31 It is interesting to note that the T4 Short Stay peak tariffs are unlikely to deter users (as stated to us by HAL). There could therefore be an opportunity to introduce peak am and pm pricing at Heathrow’s other short stay car parks.

4.32 Differential pricing has been implemented at other UK airports such as Stansted (MAG) where there are different tariff structures for the individual Orange and Green surface car park short stay zones (based on proximity to terminal). At Heathrow within specific products, HAL only offer differentiated pricing in Short Stay for the Fast Track parking zones in T2 and T5.

4.33 HAL has no current plans to roll out differential pricing across Heathrow short stay car parks. HAL noted that it would only look to use peak pricing at other car parks if these faced operational challenges that such differential pricing might help resolve.

4.34 In the US and Europe short stay tariff structures are generally based on the principles of proximity and whether a product is covered/MSCP with rates based on typical half hour and 1 hour time bands.

4.35 Some of HAL’s peers have adopted differential pricing:

- Madrid airport (and other AENA owned airports) has a “by minute” pricing structure.
- Paris CDG and Orly airports charge per 15 minute intervals between 1 hour and 4.5 hours, and 1 hour and 7.5 hours respectively.
- Changi airport in Singapore has implemented “by minute” charging (also variable charging by car park).

4.36 To maximise private car drop off revenues various forms of forecourt charging are widely in use at other UK airports. HAL has no current plans to introduce this at Heathrow although there is an increased focus by HAL's operational teams to move pick up activity into the short stay car parks from the designated drop off zones on the forecourts.

Performance versus Q6 Settlement

Results – Car Parking

4.37 Cumulative Car Parking revenues per passenger have modestly outperformed the CAA forecast over the course of Q6 to date (actual £1.39, forecast £1.35).

Table 4.5: Heathrow Airport – Car Parking revenues cumulative performance, Q6 to end of 2015 (2015 prices)

	Apr – Dec 2014			2015			Q6 Cumulative Apr 2014 – Dec 2015		
Category	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**
Car Parking Income	73	78	+5	100	107	+7	173	185	+12
Car Parking Income/Pax	1.31	1.35	+0.04	1.39	1.43	+0.04	1.35	1.39	+0.04

Source: HAL regulatory accounts

Note: Results for 9 months ending December 2014 rebased to 2015 prices (RPI). In its respective 2014 and 2015 regulatory accounts HAL made the following comments that may be helpful in understanding some of the variances between actual and forecast performance:

- 2014:
  - Car Parking revenue was above forecast as a result of implementation ahead of schedule of a change to short stay parking prices.

    - Retail Expenditure was 14% lower than forecast due to lower car park management costs.
- 2015:
    - Parking performance supported by increased participation rates (increase in transactions).

4.38 More specific commentary provided to us by HAL includes:

Table 4.6: Heathrow Airport – Q6 Car Parking revenues performance commentary

Category	HAL commentary

Car Parking	• Car Park Revenue growth:
	    • Phased Short Stay Rollup Price Increase/Benchmark and Timeband Restructure at the start of Q6;
	    • A new Business car park (c 800 additional spaces) opening at T5 in February 2015;
	    • Opening of new MSCP 2 providing an additional 1,250 spaces;
	    • Investment in marketing and direct acquisition of pre-book parking within a competitive environment; and
	    • Development of new products, in particular Meet & Greet which allowed HAL to compete more on price as well as operate at higher levels of car storage and movements.
	• ✂
	• Authorised Vehicle Area: Opened in June 2016 to encourage private hire vehicles off the local roads to enhance the surrounding communities.

Source: HAL

Lessons for the H7 process

Stakeholder opinions

Airlines

4.39 Airlines felt that customers wishing to be picked up on the forecourt were disadvantaged as at some Terminals customers were forced to be picked up in the car parks and questioned whether the introduction of a 15 minute grace period would have a material cost to HAL's parking revenue versus improving customer service.

4.40 Airlines felt staff parking volumes may reduce over time, allowing more capacity to be given over to public parking.

Managing Agent

4.41 APCOA is a Managing Agent rather than a typical retail revenue sharing Concessionaire. It is responsible for providing a range of car parking and travel related services to HAL, and in return HAL pays all opex costs and a management fee. APCOA is considered a leading expert in the airport parking market.

4.42 Car park related bussing services are provided by Menzies another key supplier to HAL.

4.43 HAL retains all commercial responsibility for pricing, product development, marketing and distribution of the public parking products. APCOA provide the day to day operational expertise, processes and parking technology to deliver HAL's parking services. With circa 250 APCOA staff, Heathrow is one of the largest public parking operations in Europe and leads the way in parking innovation.

4.44 APCOA, as a global parking brand, shares new technology across all its parking sites from better management of CO_2 emissions, taxi management technology to an online staff briefing tool to reduce manpower downtime. However, APCOA believes HAL has greater knowledge and experience in leveraging revenues from pre booking through effective yield management and pricing optimisation than its peers in Europe, albeit pre booking and the wider roll out of products such as valet parking to the leisure market are now growing in Germany and Scandinavia.

4.45 APCOA believes HAL's style of management contract is an excellent vehicle for working in partnership with an airport owner, providing incentives to the operator to demonstrate its operational expertise within a contract structure that is fair, but drives exceptional performance.

4.46 HAL is currently implementing a programme for concessionaires and business partners known as Brilliant Basics. APCOA's participation in this programme is focused on delivering all operational aspects of the parking service to the highest possible standard, for example by increasing the reliability of the parking equipment, driving down maintenance costs and in turn reducing operational costs.

4.47 As a Managing Agent, APCOA will continue to work proactively with HAL to adapt and deliver services within a changing and increasingly competitive environment bringing operational knowledge and scalable manpower to meet future needs.

4.48 A current example of APCOA's adaptability in meeting HAL's needs is the increase in valet parking services. HAL wanted to provide a more competitive product so introduced an additional two Meet and Greet products (on airport and Good To Go) across the campus in addition to the forecourt based Valet parking product. Heathrow has a complex and distributed geography, a congested CTA and limited parking capacity, however, the products are highly successful from both a customer and yield perspective and APCOA now stores customer vehicles across the campus, accounting for 5,550 spaces (approximately 20% of total public capacity).

Q6 Forecast Methodology – Car Parking

4.49 The methodology and assumptions used for car parking were based on the data provided by HAL, the ✂ econometric model used by HAL, and stakeholder opinion. Key to the car parking forecasts being delivered for Q6 was the adoption by HAL of the following strategic objectives in delivering its business plan:

- Marketing activity (most important factor for driving revenue in the RedRoute Model) would be increased for pre booking resulting in an uplift to parking revenues of 0.9%.
- Additional capacity to be provided (particularly T5 business where utilisation had reached 97%). T2 MSCP would be delivered for summer 2014.
- The North-side Perimeter Parking project (NPP) maximising capacity would be realised, favoured by the Airline stakeholders (additional 3.5% growth delivering £11.6m but later withdrawn as would only be possible to achieve revenues if delivered early in Q6).

4.50 Airline stakeholders believed HAL could deliver an additional 1% to 2% revenue stretch target. HAL's plans to deliver stretch were included in its FBP and comprised:

- Progressing e - business development, bundling products and improving conversion rates/using CRM data;

- Roll up Yield Management;
- Improvements to Valet product;
- HEX cross sell;
- Lowering prices to new customers (research indicated that 10 million passengers do not park as it is too expensive);
- Upselling long stay customers to short stay pre book and Valet including Heathrow meet and greet product;
- The introduction of a new hotel and parking product; and
- Reducing operating costs by consolidating APCOA's operation into one control centre.

4.51 It is understood from HAL that it delivered much of its stretch plans during the Q6 period.

4.52 Further recommendations generated by SDG's review of commercial revenues included:

- Wider distribution of product, by consolidators and other affiliates, particularly via airlines such as British Airways.
- Structural changes to short stay tariffs (up to 2 hour market).
- Greater enforcement of terminal forecourts to move more pick up traffic into short stay car parks.
- Differential pricing between short stay car parks.
- Greater discounting of short stay pre book backfill products and valet parking.
- Promotional pre book offers - all pre book products.

4.53 Although the stretch target was considered achievable, HAL's lack of parking capacity, off airport competition and concerns over press/stakeholder reaction to pricing increases would be expected to limit HAL's ability to achieve the stretch goals envisaged by the airlines. These considerations were included in SDG's assumptions accordingly.

Assumptions on impacts

4.54 SDG's final assumptions driving our Q6 revenue forecasts for the CAA at Heathrow comprised structural changes to short stay (i.e. 15 minute tariff up to 2 hrs) and greater promotion through discounting/special offers of all pre book products.

4.55 Based on performance since then, learning points include:

- Car parking yield management is complex to model and it is difficult to isolate any product substitution in a changing and competitive environment.
- Response to competition (off airport or other modes such as taxi/private hire) makes marketing and pricing outcomes uncertain.
- Although there were significant areas of disagreement at the time, HAL subsequently during Q6 adopted some restructuring of the up to 2hr short stay tariff in 2014 and increased marketing of pre book products, reducing pricing differentials for pre book short and valet products to increase the attractiveness of these products in line with other airports such as Gatwick.
- HAL has, since the last CAA Review, been making significant efforts to backfill available short stay capacity. T5 short stay revenue in 2015 comprised 34% pre book, delivering £8.9m and a 2% YoY increase in revenue over 2014. T5 Valet (includes meet and greet product) delivered the highest pre booked valet parking revenues at £5.1m and generated 4% increases in revenue YoY since 2013.

Best practice from other airports

4.56 UK airports are seen as leaders in the global airport parking market.

4.57 Where parking is contracted out to third parties, airports have used the most commercially astute management contracts, where the airports retaining all revenue benefits from passengers, and control over tariffs and product development. There is no material benefit in HAL operating the car parks directly as it would only save the APCOA management fee. All operating costs are strictly monitored by HAL and there have been savings over the Q6 period (such as a centralised operator control room). APCOA’s contract at Heathrow specifically incentives it for making operating cost savings largely by introducing technology and innovation.

4.58 Airport parking is a mature market in the UK and airports have well developed car park products with customer centric, easy to use, pre booking websites and are leaders in yield management and pricing optimisation techniques. HAL has developed a wide range of products and, with its yield management supplier, Ideas, has now created a responsive yield management system to effectively manage the Heathrow parking portfolio.

4.59 From a product perspective, Schiphol is the key comparable airport (the parking operation is owned and operated by Schiphol) with a number of well-developed parking products and an effective pre booking system introduced in 2004, delivering over 70% pre booked transactions at peak times. Pre booking was principally introduced to tackle the issues of falling penetration and to address growing off airport competition (over 25 competitors), but like Heathrow now provides Schiphol with better customer profiling from customer data, growing the overall e-commerce opportunity, as well as increasing parking revenues from upselling and targeted promotions.

4.60 Schiphol provides quality parking products, for example its Excellence business product offers a waiting area with WiFi and other facilities, wider bays, bay sensors and a number of payment options such as credit card payment on entry and Automatic Number Plate Recognition (ANPR) for pre booking. Valet parking offers additional reward points when booking ancillary services such as car wash, tyre change, and car service.

4.61 Other European airports offer the same core range of products but with some new products such as “Ladies Parking” (women only) at Frankfurt airport with reserved rows colour coded in pink to aid wayfinding and wider bays which sparked a sexism row when introduced.

4.62 Although there are similar levels of off airport competition at European airports, the UK airports attempt to manage and license off site operators to try and mitigate their competitive impact. HAL licenses bussed operators and provides discounts in the short stay car parks for off airport meet and greet competitors.

4.63 With the implementation of HAL's budget priced Good To Go product, comparable with MAG's Jet Parks portfolio of products, HAL is now directly competing in the market place for the customer who traditionally at Heathrow would use private hire or off airport parking. HAL is monitoring volumes and any dilution impacts with this product on its other pre book business. By adopting this approach HAL will ensure parking yields are optimised.

4.64 Although pre booking is becoming more common place in Europe, peer airports such as Paris

CDG and Orly have limited reserved parking but in the main provide discounts by subscription or loyalty programs. This often results in a higher yield per space with the majority of transactions ‘roll up’.

4.65 ✂

4.66 The global growth of private hire (in particular Uber and Lyft etc.) is a challenge for all airports. In the US, where provision of free cell phone lots (waiting areas provided by the Airport for vehicles pre accessing the forecourt to drop off customers) is the norm, airport operators are now trying to respond to falling parking revenues by actively marketing their parking services and adopting a pre booking strategy.

4.67 In the UK and in particular at Heathrow where there has always been a high level of competition from taxis and private hire. HAL's response has been to create a designated car park (located on the northern perimeter road above the CTA tunnel) with a charging structure to move private hire from waiting on adjacent residential roads. This has been in operation since June 2016 and has been well received by local residents. In tandem, tighter enforcement of forecourts and airport access roads will help to manage the issue operationally. Although it is too early to assess the impact on HAL's short stay revenues in any detail, early indications show that there is a greater proportion of transactions in the 30 minute time band in the short stay car parks. This increase in volume has delivered an increase in revenue but eroded Average Transaction Value.

4.68 On balance there appears to be little that Heathrow can adopt from other UK or European Airports in terms of its approach to car parking that it is not already addressing.

Methods to increase revenues from existing sources

4.69 HAL is proven to be competitive with its pre booked products versus off airport competition, and it compares well with other key UK airports with its short stay tariff structure.

4.70 Since the last CAA Review, HAL restructured the short stay tariffs (up to 2 hours) in 2014 and introduced trial peak pricing in short stay car park 4 for operational reasons (this is shortly being withdrawn).

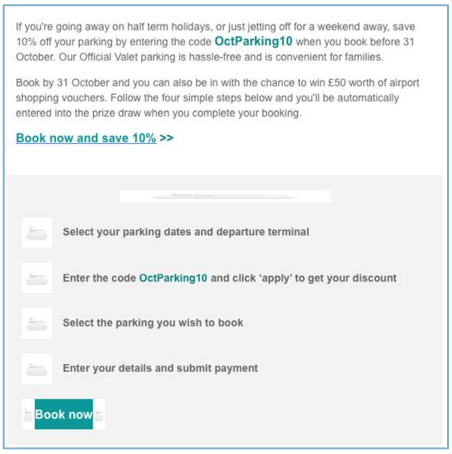
4.71 HAL has been clear that it currently considers the pricing structure appropriate and does not intend to leverage any more value from its short stay tariffs by restructuring or by introducing differential or further peak time/day pricing such as moving to “by minute” or “15 minute segment” pricing as used by some of its European peers. However, it remains open to review of different pricing options, as it understands the role price plays in balancing short term financial return with long term decline in penetration and user avoidance.

4.72 In the event that other UK airports, such as Gatwick, move to a different structure it is possible HAL could reconsider.

4.73 As the yield management system provided to HAL by the supplier Ideas is largely bespoke it is not possible to compare functionality directly with other suppliers, however the system has been developed over many years and HAL has confirmed that it is capable of fully analysing and optimizing yield and that it does not need to use any other yield or pricing automation tools. The Chauntry pre booking engine used by HAL is a legacy system but has the same core capabilities when compared to other leading booking engine suppliers in the market such as Inventive It, Aeroparker (MAG’s supplier), Advam and Rezcomm.

4.74 Customer relationship management (CRM) data is used by airports in marketing pre book campaigns and email promotions offering other retail products and services to customers who have previously pre booked parking.

Figure 4.6: Parking promotion - recent Gatwick example



Source: Gatwick Airport Limited

4.75 Heathrow (along with other airports in the UK and Europe) is adopting a similar approach in developing its e-commerce strategy.

4.76 With regard to pre booking HAL has adopted a strategy of working in a more limited way with booking consolidators/affiliates using its own booking channel "Advance" for selling its on airport products and using consolidators such as Holiday Extras and APH to distribute the Good To Go products, alongside other off airport products. This was a conscious decision by HAL to protect brand, control costs, increase margin and own the customer. Regional airports in the UK, such as Glasgow, have adopted a full distribution strategy, as they believe it is better to be widely known in the pre book consumer market. By comparison to HAL, MAG allows all products at Manchester airport to be distributed by the top 3 consolidators, Holiday Extras, APH and Purple Parking, in order to achieve a wider distribution, with the level of revenue increase offsetting commission costs and increasing their presence in the car parking market.

4.77 MAG has been particularly successful in growing its Jet Parks product at all of its airports resulting in reduced off airport competition at Manchester, hardly any off airport competition at East Midlands and limited competition at Stansted airport, contributing to the highest revenue per passenger of all of Heathrow's peers.

4.78 The following table benchmarks airport products distributed via the airport's own channel and by the three top car parking booking consolidators. It should be noted all of the consolidators listed also operate their own car parks:

Table 4.7: Benchmarking Distribution Channels for pre booking at key UK airports

Channel	Heathrow	Manchester	Gatwick	Stansted
Airport owned	• All on airport	• All on Airport & Jet Parks	• All on Airport	• All on Airport & Jet Parks
Holiday Extras	• Not on airport • Good To Go only	• All on Airport & Jet parks	• Only on Airport Long Stay	• All on Airport & Jet Parks
APH	• Not on Airport • Good To Go only	• All on Airport & Jet parks	• Only on Airport Long Stay	• All on Airport but not Short Stay Economy
Purple Parking	• None	• All on Airport & Jet parks	• None	• On Airport Long Stay and Meet & Greet

Source: Steer Davies Gleave analysis

Methods to increase revenues from new sources

4.79 Car park capacity remains an issue for HAL. The current parking cap is 42,000 spaces. HAL had considered consolidating the car parks on the northern perimeter road (NPP) and we reviewed these plans as part of the last CAA Review. The intention was to also extend the use of the Personal Rapid Transit (PRT), currently used for T5 POD parking, from the new consolidated NPP car parks through one of the small side tunnels into the CTA.

4.80 It should be noted any additional PRT system would require a significant capex. As part of the Q6 constructive engagement, HAL proposed projects connecting other northern perimeter car parks to T5 and the CTA using a PRT system but these were not agreed with the airlines. Also of note is the fact that the existing POD capital investment was excluded from the RAB by the CAA. The CAA decided to set HAL's price control excluding:

- The capex, both past and future, on the PRT;
- The return on the RAB and depreciation from the PRT expenditure;
- The projected opex on the PRT; and
- Associated revenues generated by the PRT.

4.81 Providing additional quality capacity served by the PRT would, however, allow HAL to price its business car parks serving the CTA at the same level as the T5 POD parking, contributing to increased parking revenue. For example, the pricing differential between standard business parking (all Terminals) and T5 POD parking currently is shown below:

Table 4.8: Prices – T5 POD vs T1-T5 Business Parking

Time Band	Business Parking T1-T5	T5 POD Parking
Tues-Thurs	£29.50	£37.50
Fri – Mon	£26.50	£33.00

Source: HAL

4.82 HAL currently has no published plans to introduce access charging. However changes to the CTA (demolishing car parks 1 and 1A) would provide the opportunity to create more road/forecourt infrastructure. It is understood by HAL however that car park 1 will be demolished in 2-3 years to make way for either a logistics area to facilitate the demolition of Terminal 1 and build of Terminal 2 extension or to enable a new Passenger Terminal Interchange to enable the road into the CTA to be realigned and straightened. There may still be possibilities to create a forecourt chargeable plaza and future mass roll out of autonomous vehicles (likely to be after H7) could create a large market for such a product, however at this stage it seems unlikely.

4.83 Although at the time of writing Heathrow's airlines have not contributed to this report, in the last CAA review they provided opinion from Nyras on behalf of British Airways which concluded that access charging, particularly for private hire/taxi, and the NPP project would be desirable in generating additional revenues.

4.84 Distribution of pre book parking has been referred to earlier in this report as has HAL's strategic approach in only using its own channel "Advance" to distribute its on airport positioned products. HAL stated that there have been past discussions about including Heathrow parking products in the booking flows of BA (the BA Valet service is a "white labelled" product), but these have not advanced. The level of commission airlines charge airport owners and issues over ownership of car parking CRM data are factors that make such deals with airlines difficult to make. Additionally, there are issues over diluting revenues if sales through the airlines are not true incremental sales. However, a wider distribution may provide some opportunity for additional revenue, especially at off peak times and HAL remains open to working with airlines on including Heathrow products in their booking flows. However, success will depend on finding a commercial model that works for both parties and for airlines to move away from a wider deal and partner with just Heathrow.

Car Rental/Private Hire

4.85 Car rental mode share at Heathrow has remained stable at 2.7% during 2014 and 2015.

4.86 Revenues have been under pressure in recent years from industry brand acquisition and consolidation, which has driven down prices and HAL's revenues. Car rental companies have, however, been innovating over the last few years and utilising technology to provide more self-service options for customers, reducing manned facilities and thereby cutting operating costs. HAL has been supportive of such developments (for example with Hertz, and by providing car rental companies prime spaces in the short stay car parks), however the opportunity to materially improve HAL's car rental product offering and revenue can only be delivered by providing a consolidated car rental centre.

4.87 HAL and the car rental companies/BVRLA (trade body for the vehicle rental and leasing sector) are hoping that once the R3 scheme has been finalised they will be able to identify suitable land to locate this type of facility incorporating car storage and valeting/fuelling facilities as well as an improved front of house experience for customers with more choice of car rental operator.

4.88 There are many examples in the US and Europe, for example Nice airport's Consolidated Car Rental Centre has over 2,000 spaces housed in a dedicated MSCP and generates 80% of all car rental activity in the immediate region and 10% of the French total. Heathrow's car rental operators have in total just over 1,000 spaces split across five remote locations with adequate wayfinding for the customer an historic issue.

4.89 Private hire/taxi has grown from 25.8% share in 2014 to 27% in 2015. Historically, this has always been a strong mode, competing directly with

HAL's parking products. With the rise of consumers booking private hire by mobile phone app, the growth of car and ride sharing companies such as Uber and Lyft has become a global phenomenon.

4.90 At Heathrow the proliferation of companies using local roads and commercial sites for waiting off site before collecting customers at the terminal forecourts has been an issue for local residents and businesses and also results in much greater road congestion around the terminals and in CTA road system. HAL's introduction of a dedicated north side car park is a helpful start in managing the issue, however it is possible that growth in these services could seriously impact airport revenues and HAL could consider how to further commercialise these services.

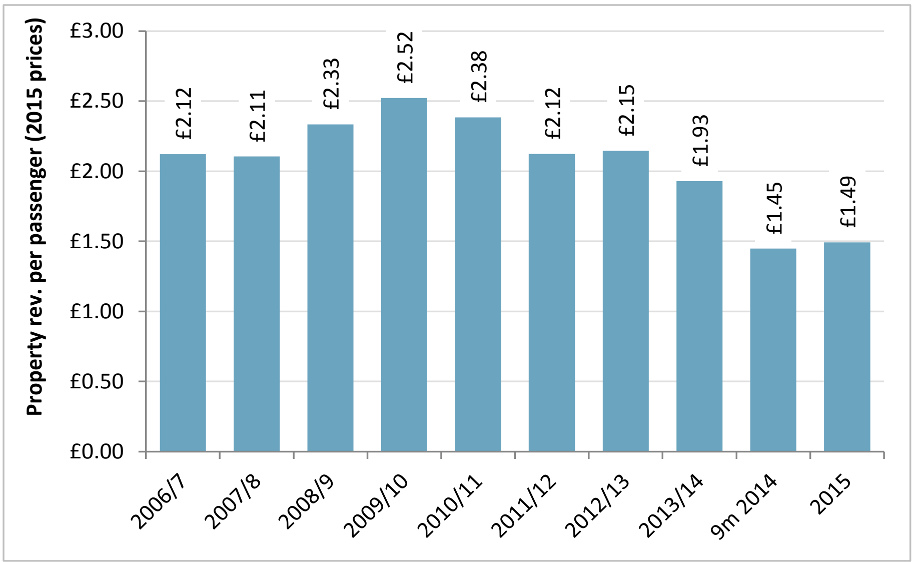
5 Property

Recent performance trends

5.1 HAL's Property activities generated £112 million in revenues during 2015.

5.2 A principle driver of Property revenues is space rather than traffic volume. As a result, on a per passenger basis Property revenues have been under pressure in recent years, reflecting competition from, and the prioritisation of, airport space for operational and other commercial uses.

Figure 5.1: Property revenues per passenger (2015 prices)



Source: HAL Regulatory Accounts

Drivers of Property performance

5.3 HAL's property revenues are driven by several key influencing factors including rental rates – led by the Guide Price – the amount and type of space available to rent, and occupancy levels.

Guide Price

5.4 The Guide Price is an annual rental growth index applied to HAL's properties which is informed in equal parts by:

- Growth in total passenger numbers;
- RPI changes; and

- Changes in the Property IPD index, an index based on an average of the individual IPD indices for Central London, Outer London, and West London to produce a weighting appropriate to Heathrow.

5.5 Recent movements in the Guide Price index are summarised below:

Table 5.1: Heathrow Airport – Property Guide Price index, 2010-2015

Year	Pax % YoY	RPI % YoY	*IPD Central London % YoY*	*IPD Outer London % YoY*	*IPD West London % YoY*	IPD Heathrow % YoY	Guide Price % YoY	Comments
2012	+0.9%	+3.1%	*+4.1%*	*+2.1%*	*+0.8%*	+2.3%	**+2.1%**	Applied Apr 2013-Mar 2014
2013	+3.4%	+2.7%	*+5.6%*	*+3.7%*	*+1.1%*	+3.4%	**+3.2%**	Applied Apr 2014-Mar 2015
2014	+1.4%	+1.6%	*+11.0%*	*+7.8%*	*+3.0%*	+7.3%	**+3.5%**	Applied Apr 2015-Mar 2016
2015	+2.2%	+1.2%	*+11.9%*	*+8.1%*	*+3.2%*	+7.7%	**+3.7%**	Applies Apr 2016-Mar 2017

Source: HAL

5.6 It can be seen that during the Q6 period the Guide Price index has been heavily influenced by growth in the IPD indices, whereas the contributions from passenger growth and RPI have been comparatively modest.

Space and occupancy

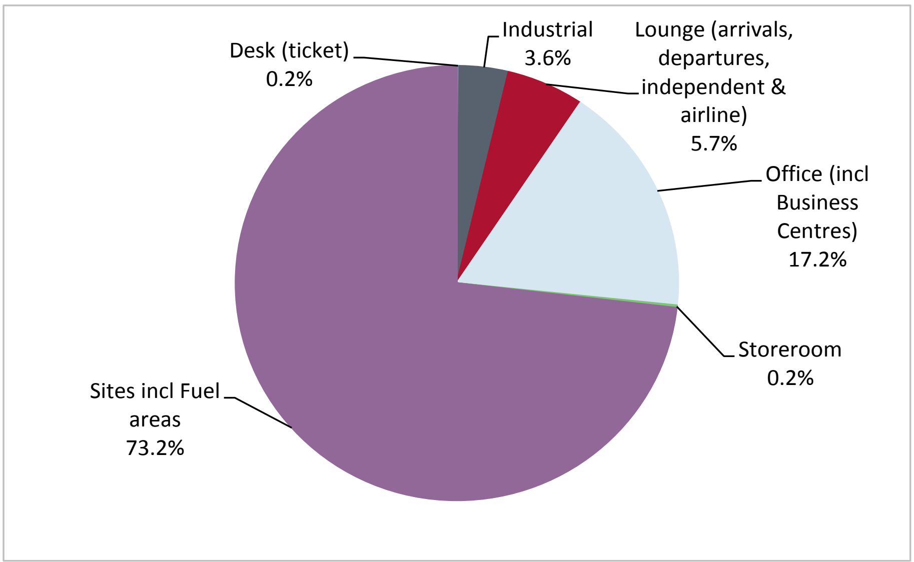
5.7 As at December 2016 HAL had a 677,000m^2 property portfolio consisting of space in the terminals, Central Terminal Area and on the airport perimeter.

5.8 The space supports a variety of functions and uses:

- Ticket desks
- Industrial
- Passenger lounges
- Office accommodation
- Storage
- Other on-airport sites including fuel farm
- Off-airport residential units

5.9 The largest category is other on-airport sites, accounting for 72% of the total space. However, office space (17%) is also substantial.

Figure 5.2: Heathrow Airport – Tenanted property mix, December 2016

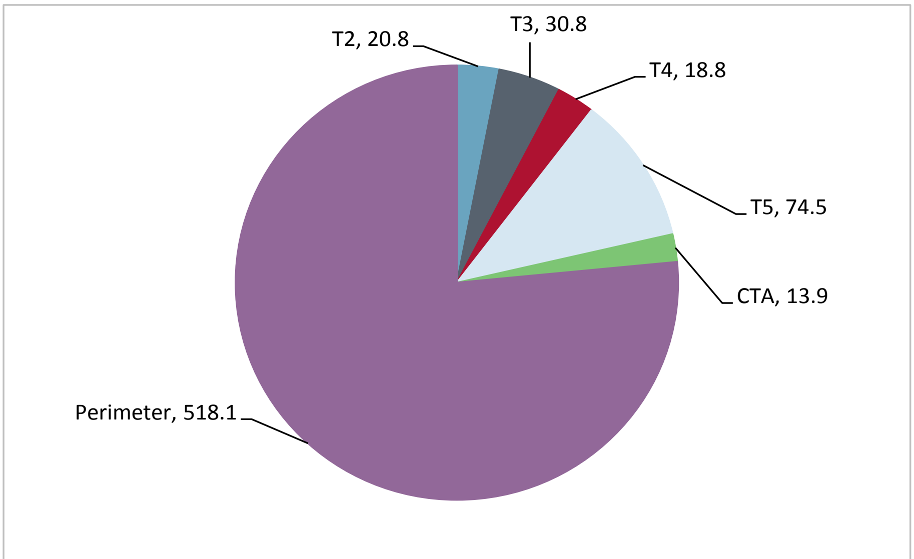


Source: HAL

Note: excludes residential properties

5.10 The majority of the portfolio is located on the airport perimeter (77%), however the individual terminals and CTA all offer sizeable amounts of property for rent. This is particularly noteworthy at Terminal 5, where the 74,500m2 of property includes nearly 34,000m2 of office space, presumably a reflection of the position of the terminal as BA's operating base on-airport.

Figure 5.3: Heathrow Airport – Property ('000 sq. m) per area of the airport, December 2016



Source: HAL

Note: excludes residential properties

5.11 The statistics shared with us by HAL indicate a very high level of occupancy, which, if correct, suggest a further tightening of the available supply versus demand in the past 3 years. At the time of our review for the CAA of Heathrow's property revenues in 2013 we reported an occupancy figure of 93.6%.

Table 5.2: Heathrow Airport – Property occupancy, December 2016

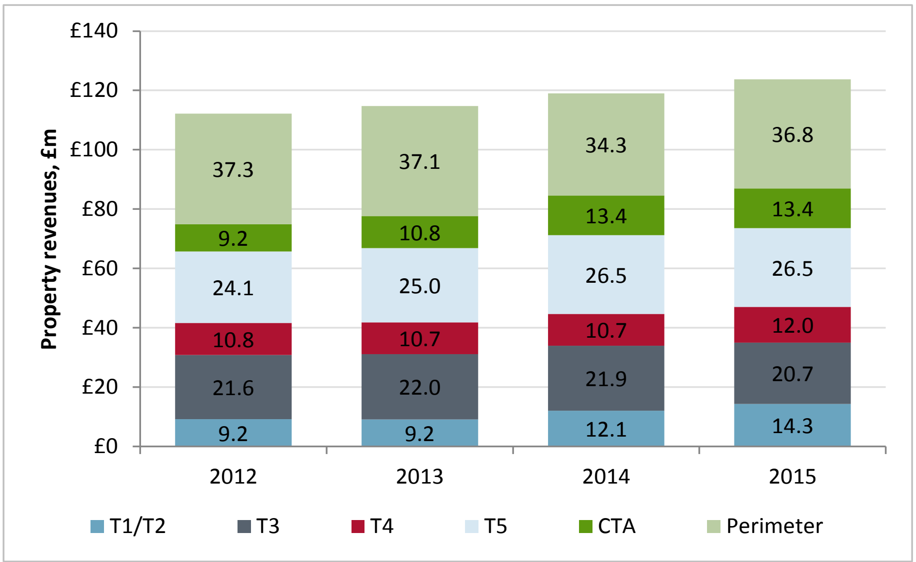
Area	Vacant space (m^2, 000s)	Occupancy %
Terminal 2	2.6	87.6%
Terminal 3	1.4	95.5%
Terminal 4	1.6	91.3%
Terminal 5	0.1	99.9%
CTA	0.4	96.9%
Perimeter	0.8	99.8%
Total	**6.9**	**99.0%**

Source: HAL

Revenue contribution

5.12 In recent years property revenues have benefitted from increases in income derived from space in Terminal 2, after the opening of the new facility, and, to a slightly lesser extent, from non-terminal sites in the Central Terminal Area. Rental income has grown more modestly in Terminals 4 and 5, and fallen in Terminal 3 and in the perimeter areas.

Figure 5.4: Heathrow Airport –Property revenue contribution by airport area, 2012-2015 (2015 prices)



Source: HAL

5.13 The yields obtained from properties in and around the airport also vary by area, with space in the terminals attracting above average yields. The central area yields are skewed because they include rental income relating to the control tower for which the rent is calculated on the de-capitalised cost of constructing the tower rather than on guideline per m^2 rates.

Table 5.3: Heathrow Airport – Property revenue yield (£ per m^2), 2015

Area	Yield (£ per m^2)
Terminal 2	£688
Terminal 3	£670
Terminal 4	£644
Terminal 5	£356
Central Terminal Area	£961
Perimeter	£71
Total	**£183**

Source: HAL

5.14 This suggests that projects to develop terminal area property will generally represent the best opportunity to optimise revenues, especially give on-airport space constraints.

Performance versus Q6 Settlement

Results - Property

5.15 Cumulative Property revenues per passenger have been lower than the CAA forecast over the course of Q6 to date (actual £1.47, forecast £1.59).

Table 5.4: Heathrow Airport – Property revenues cumulative performance, Q6 to end of 2015 (2015 prices)

	Apr – Dec 2014			2015			Q6 Cumulative Apr 2014 – Dec 2015		
Category	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**	**CAA**	**Actual**	**Act-CAA**
Property Income	87	83	-4	116	112	-4	203	195	-8
Property Income/Pax	1.56	1.44	-0.12	1.61	1.49	-0.12	1.59	1.47	-0.12

Source: HAL regulatory accounts

5.16 Specific commentary provided to us by HAL includes:

Table 5.5: Heathrow Airport – Q6 Property revenues performance commentary

Category	HAL commentary
Property	• T2 Opening saw a reduction in the amount of support accommodation leased but an increase in the amount of CIP lounge space. • T5A Independent Lounge saw the conversion of an underperforming catering unit into an independent lounge generating. • T3 Re-let of ex-Singapore Lounge. Following Singapore relocation from T3 to T2, their vacated lounge has been re-let to an independent lounge operator and has provided expansion space for Cathay Pacific.

Source: HAL

Lessons for the H7 process

Stakeholder opinions

Airlines

5.17 Airlines would like to see:

- Preparation of a detailed Property strategy, reviewing all space, what do HAL own, how is space used, opportunities to materially change the way they do business today e.g. lower cost buildings.
- Analysis of the Brexit impact on existing property leases - HAL could avoid entering into long term leases for their own use as some of their own property might become vacant as a consequence of Brexit and companies moving out of the UK.
- Assessment of the impacts of R3 during the H7 period.

Impacts of space consolidation

5.18 There is clearly demand for pay on entry lounges, business centres and terminal connected hotels. We learned that the opening of T2 in 2014 and subsequent consolidation by airlines and handling agents freed up property space which has enabled the expansion of lounges and the Arrivals Hotel at T3.

5.19 This also reduced the mix of space covered by the guide price formula as the lounges and T3 hotel are operated on turnover based rents however, independent lounges often generate the equivalent of guide price rent with the opportunity to exceed this based on their turnover. The true revenue from these new opportunities will not be fully reflected in the overall revenue numbers until the end of 2017 and early 2018 as to date these sites have been under negotiation, contract and development with only a couple of these lounges coming on line towards the end of 2016 and throughout 2017.

Best practice from other airports

5.20 Airports such as Amsterdam Schiphol take a direct interest in property investment and by way of example, in the case of their Airport hotel AMS designed, built, fitted out and then set up a management contract to operate it. The revenue from this is within their property revenue line contributing to AMS property revenue per passenger of £1.93 (HAL £1.49). By contrast, at HAL there are hotels under construction at T2 and T4 where HAL has provided the space on a long lease for which they receive a ground rent and the developer handles the operation.

5.21 There is an exception to this model at T3 where vacated office space in the East Wing Office Block is being converted into a hotel due to lack of demand for office space. In this instance HAL has stripped out the space and handed the site to the developer with shell and core finish. Under this arrangement HAL will receive a turnover based rent.

5.22 HAL could adopt more of an investment approach to areas such as hotels, hangars, warehousing and small industrial units receiving higher rent in return, however this would require additional up front capital investment by HAL and would need to be evaluated in some detail.

Methods to increase revenues from existing sources

5.23 HAL will continue to look at mix opportunities to grow revenue but this is much more difficult due to general space constraints.

5.24 Three hotel developments are underway in T2, T3 and T4. These will provide HAL with real opportunity to drive revenue as the T2 and T4 hotels are based on turnover based ground rent and the T3 development based on turnover based rent. With a good marketing strategy HAL could influence the success of this.

5.25 Pay on entry Lounges are under development in T3 & T4 Arrivals and, T5 Departures. These are turnover based rent deals from which HAL can influence the level of revenue achieved.

5.26 Consideration could also to be given to using the high occupancy rates as leverage for negotiating higher rents. However as this can only happen around the Perimeter area, which must compete with off airport property rents, a strategy such as this would be very short term. There is a risk that it could lead to higher vacancy rates over the medium term.

Means to increase revenues from new sources

Additional commercial uses of a similar type

5.27 HAL believe there is limited opportunity to significantly develop Property revenue ahead of the R3 Master-plan being delivered as they are currently space constrained but, they have told us there is strong demand, especially for independent Lounges, Business Centres and Terminal connected Hotels.

Further types of commercial development

5.28 As already mentioned, HAL could consider adopting a developer manager approach to Property whereby they fund development costs in return for higher rents. This is the model adopted at some airports although HAL's approach has been to let the experts develop and manage with the airport simply providing the land. This would require more detailed review than is possible within this study due to the additional capital investment required.

6 Further Analysis

Key Findings

Retail

6.1 While this should not be a constraining factor, HAL is a benchmark in the world of airport retail.

6.2 The airport enjoys some of the highest levels of sales and revenue per passenger, has direct relationships with and the presence of the world's leading luxury brands, and trades its space very effectively to drive sales and margin.

6.3 The key findings of this report which should be considered further include:

- Changing consumer shopping behaviour facilitated by the development of e-commerce – while it is impossible to predict the full impact e-commerce will have on Travel Retail, the millennials who have grown up with e-commerce will expect to experience the same degree of flexibility towards their shopping at the airport as when they are at home. This means that the foundations for this change must be considered and developed so that HAL is ready for this eventuality. A new business model could be considered to radically grow sales, combining HAL's retail and e-commerce capability with the airlines access to 100% of passengers travelling through Heathrow Airport. HAL and its airline partners could be the disruptor to Travel Retail.
- Most airports deliver step change in their retail revenues as a consequence of expanding their retail space. It is clear that in the absence of material additional space being available at Heathrow over the medium term combined with the fact they are already space constrained (compared to existing benchmarks), there is reason for concern over future revenue growth. This is a major issue both commercially and for passenger experience. Conversely, developing new space will be very expensive requiring innovative solutions in order to deliver successfully.
- Possibly linked to space constraints, it appears that HAL's struggle to grow sales materially has driven them to adapt their model, sacrificing flexibility (e.g. duty free extension as recommended in the CAA Q6 Report). While this has supported revenues in the short term there is a limit to how far they can go without causing long term damage as a result of moving away from principles which made them so successful in the first place.
- We have mentioned areas where HAL has more or less influence but it is difficult to see how, in the absence of significantly more space, where HAL will derive material levels of incremental revenue and, become more exposed to areas outside of their control such as exchange rates, shopping habits and above all else, a disruptor to the sector – the Uber of Travel Retail. This suggests HAL is at a crossroads

with its current model and may need to think and act very differently to protect and grow retail revenue going forward.

Car Parking

6.4 In comparison with its peers, HAL leads the airport parking market through its:

- Consumer strategy offering a wide choice of quality products and competitive pricing particularly during off peak; and
- Parking operation deploying best practice technology and processes in a highly competitive environment.

6.5 It appears that there is a limit to what HAL can learn from other UK or International airports that would make any real difference to parking revenues given its geography and available capacity, save for reviewing its distribution strategy and assessing whether a wider strategy with affiliates such as airlines and other consolidators could indeed generate material parking revenues/provide wider commercial opportunities.

Property

6.6 Some of the key findings around Property include:

- While HAL does not necessarily lead its peers in relation to Property revenue per passenger it is important to remember that HAL's property revenue in and around the terminal areas is largely influenced by the Guide Price Formula, over which they have no control and, in the case of property located around the Perimeter there are limitations due to local competition.
- From a pure benchmarking perspective one should not take the performance at face value as some airports with higher revenue are known to operate under a different model, they act as the developer, invest more money than HAL and as a consequence enjoy higher returns. With no material new space coming on-line before R3 this is a model HAL might need to explore.
- HAL has developed alternative, passenger-facing, ways to develop Property space e.g. pay on entry lounges. The turnover based rents can match and potentially exceed the guide price rents if the lounges are successful.
- As with Retail, there is a general shortfall in property space which should be reviewed as this will constrain revenue growth.

Recommended Actions

6.7 Based on the analysis set out in this study we recommend that the following actions might be usefully undertaken, supported by the requisite data from HAL where necessary:

Table 6.1: Proposed actions

Category	Comments
Retail	• Detailed review of commercial space to define the optimal amount of retail space going forward. To include a full review of Satellite buildings outlining how they could be commercialised and cost benefit analysis on the development of retail space over cost of delivery. • Explore potential future legislative impacts on retail sales, upside or downside. • Review opportunities or threats in terms of HAL's ability to continue to control the passenger-related retail distribution channel given changes led by e-commerce. • Consider means to incentivise the airport community (HAL, airlines, retailers) to collaborate to drive commercial revenues growth - a new business model.
Car Parking	• Conduct a high level review of car park operator and HAL marketing costs (as part of an overall Heathrow car parking cost review) and benchmark where possible to other best practice airports to identify any potential for further cost savings. • Review time band analysis for HAL's short stay car parks to assess opportunities for further restructuring to provide additional revenue opportunities i.e. by minute /differential pricing by Terminal.
Property	• Detailed Property Strategy, reviewing all space, what do HAL own, how is space used, opportunities to materially change the way they do business today e.g. lower cost buildings.

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