

UK Airports Financial Benchmarking

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Contents

1	Executive summary	6
1.1	Analysis Context	6
1.2	Selected Metrics	6
1.3	Summary Findings	7
1.3.1	Introduction	7
1.3.2	Contextual Metrics	7
1.3.3	Profitability Metrics	8
1.3.4	Returns Metrics	8
1.3.5	Summary	9
2	Introduction to the Benchmarking Analysis	10
2.1	Purpose of the Benchmarking Analysis	10
2.2	Selecting the Sample Airports	10
2.3	Data Sources	12
2.4	Airport Ownership Context	12
2.5	Ensuring Comparability	14
2.5.1	Market Context and Implications for the Benchmarking Approach	14
2.5.2	Accounting Periods	15
2.5.3	Definitions and Adjustments	16
2.5.4	Choosing the Metrics for the Comparison Group	17
2.5.5	Treatment of Exceptional Items	20
2.5.6	Treatment of Inflation	21
3	Findings from 2011 to 2019	22
3.1	Introduction	22
3.2	Profitability or Margin Findings	23
3.2.1	Introduction	23
3.2.2	EBITDA and EBITDA Margin	23
3.2.3	Adjusted Operating Profit Margin (OPM)	25
3.2.4	Considering the Impact of Fair Value Gains on Investment Properties and its Impact on Profitability Measures	27
3.2.5	Net Profit Margin	29
3.3	Returns Findings	31
3.3.1	Introduction	31
3.3.2	Return on Capital Employed (ROCE)	32
3.3.3	Return on Fixed Assets (ROFA)	34
3.3.4	Return on Fixed Assets (ROFA) <i>Less Intangibles</i>	35
3.4	Contextual Metrics	37

3.4.1	Passenger Numbers	37
3.4.2	Airport Revenues	40
3.4.3	Airport Expenditures	47
4	Findings from 2020 to 2022	56
4.1	Introduction	56
4.2	Profitability or Margin Findings	57
4.3	Returns Findings	59
4.4	Contextual Metrics	60
5	Appendix	67
5.1	Treatment of Exceptional Items	67
5.2	Treatment of Coronavirus Job Retention Scheme Incomes	70
5.3	Revenue Classifications used for Aviation and Commercial Revenues	71
5.4	Detailed Metric Definitions and Notes	72
5.5	Airline Capacity Summary at Benchmark Airports 2010-2022	75

Figures

Figure 1:	2019 Annual passengers at 15 largest UK airports, Millions	11
Figure 2:	Monthly total airport passengers at UK airports, January 2010 to September 2023, Millions	15
Figure 3:	Visualisation of adjustments made to calculate each profitability metric*	20
Figure 4:	Monthly total airport passengers at UK airports, January 2011 to December 2019, Millions	22
Figure 5:	Nominal EBITDA and EBITDA Margin summary results for benchmark airports, 2011-2019 ..	23
Figure 6:	Nominal Adjusted Operating Profit and Margin summary results for benchmark airports, 2011-2019 ..	26
Figure 7:	Investment Property Gains and Losses applied to Adjusted Operating Profit and Margin in Figure 6, 2011-2019	28
Figure 8:	Adjusted Operating Profit and Margin including Revaluation Gains and Losses, 2011-2019	28
Figure 9:	Nominal Net Profit and Margin summary results for benchmark airports, 2011-2019	30
Figure 10:	Return on Capital Employed (ROCE) summary results for benchmark airports, 2011-2019	32
Figure 11:	Return on Fixed Assets (ROFA) summary results for benchmark airports, 2011-2019	34
Figure 12:	Return on Tangible Assets (ROFA-I) summary results for benchmark airports, 2011-2019	35
Figure 13:	Annual passenger numbers applied in our analysis, 2011-2019	38
Figure 14:	Total Aviation Revenues at benchmark airports, 2011-2019	41
Figure 15:	Aviation Revenues per passenger at 2019 prices at benchmark airports, 2011-2019	41
Figure 16:	Total Commercial Revenues at 2019 prices at benchmark airports, 2011-2019	43
Figure 17:	Commercial Revenues per passenger at 2019 prices at benchmark airports, 2011-2019	43
Figure 18:	Total Airport Revenues at 2019 prices at benchmark airports, 2011-2019	44
Figure 19:	Total revenue split for all airports in benchmark group between 2011 and 2019	45
Figure 20:	Share of Aviation and Commercial Revenues at each airport, 2011-2019	45
Figure 21:	Total Airport Revenues per passenger at 2019 prices at benchmark airports, 2011-2019	47
Figure 22:	Annual operating expenditure GBP Millions, 2011-2019 (Real 2019 CPI)	48
Figure 23:	Adjusted operating expenditure per passenger at 2019 prices, 2011-2019	49

Figure 24: Annual operating expenditure (incl. Deprn. & Amort.), 2011-2019	50
Figure 25: Operating expenditure per passenger at 2019 prices (incl. Deprn. & Amort.), 2011-2019	50
Figure 26: Annual total Capital Expenditure, 2011-2019 (Real 2019 CPI)	52
Figure 27: Capital expenditure per passenger at 2019 prices at benchmark airports, 2011-2019	52
Figure 28: Total Expenditure at benchmark airports, 2011-2019 (Real 2019 CPI)	54
Figure 29: Total Expenditure per passenger at 2019 prices at benchmark airports, 2011-2019	54
Figure 30: Monthly passengers at UK Airports (millions), January 2019 - September 2023	56
Figure 31: EBITDA and EBITDA Margin summary results for benchmark airports, 2019-22	57
Figure 32: Adjusted Operating Profit (OPM) summary results for benchmark airports, 2019-22	58
Figure 33: Net Profit (NPM) summary results for benchmark airports, 2019-2022	58
Figure 34: Return on Capital Employed (ROCE) for benchmark airports, 2019-22	59
Figure 35: Return on Fixed Assets (ROFA) for benchmark airports, 2019-22	59
Figure 36: Annual passenger numbers per financial statements, 2019-22	60
Figure 37: Total Airport Revenues at benchmark airports real 2019 values, 2019-22	60
Figure 38: Total Airport Revenues per passenger in real 2019 prices at benchmark airports, 2019-22	61
Figure 39: Aviation Revenues at benchmark airports as per financial statements, 2019-22	62
Figure 40: Aviation Revenues per passenger at 2019 prices at benchmark airports, 2019-22	62
Figure 41: Commercial Revenues at benchmark airports as per financial statements, 2019-22	63
Figure 42: Commercial Revenues per passenger at 2019 prices at benchmark airports, 2019-22	63
Figure 43: Total Expenditure at benchmark airports 2019 prices, 2019-22	64
Figure 44: Total Expenditure per passenger at 2019 prices at benchmark airports, 2019-22	64
Figure 45: Annual Capital Expenditure at benchmark airports as per financial statements, 2019-22	65
Figure 46: Capital Expenditure per passenger at 2019 prices at benchmark airports, 2019-22	65
Figure 47: Adjusted Operating Expenditure at benchmark airports as per financial statements, 2019-22	66
Figure 48: Adjusted Operating Expenditure per passenger at 2019 prices at benchmark airports, 2019-22	66

Tables

Table 1: Key comparator metrics used in this report	7
Table 2: Airport data sources used in the benchmarking analysis	12
Table 3: Benchmark airports' financial years, calendar years and accounting periods reference table	15
Table 4: Key metrics used in the benchmarking analysis	18
Table 5: ONS CPI deflators, 2019 base year	21
Table 6: Key exceptional items for benchmark airports	68
Table 7: Key exceptional items profitability metrics impact table	69
Table 8: Summary treatment and impact of Coronavirus Job Retention Scheme (CJRS)	70
Table 9: Revenue classifications for benchmark airports	71
Table 10: Detailed metric / measure definitions for benchmark airports	72
Table 11: Annual Departing Seats by Airline at benchmark airports, 2010-2022	75

1 Executive summary

1.1 Analysis Context

The Civil Aviation Authority (CAA)'s economic regulation of Gatwick Airport Limited (GAL) is based on a light touch approach underpinned by a set of 'commitments' that include a cap on the average aeronautical charge per passenger implied by GAL's published tariffs, a set of service quality targets and rebates, and a minimum investment requirement. The first set of commitments operated from April 2014 to March 2021. They were replaced in 2021 by a new set of commitments that expire in March 2025.

Following consultation with airlines in 2022, GAL has put forward for the CAA's review, a proposal to extend the current commitments by a further four years.

In the context of this proposal and its review by the CAA, PA Consulting Ltd. have been engaged to undertake a desk-based data analysis and benchmarking exercise of GAL's profitability and other performance indicators (such as changes over time in costs and charges) with a comparison group of UK airports.

The PA Consulting team has relied explicitly and exclusively on published and publicly available data and has not engaged directly with any of the airports in the analysis. The primary sources for financial data have been Companies House accounts, published annual reports and airport websites. Where inconsistencies have been identified, these have been noted, similar to data gaps in reporting.

We have been asked to independently analyse and benchmark a range of appropriate measures for GAL's profitability and other indicators but have also been asked to not draw conclusions or inferences from the data about whether GAL's profits are at an appropriate level.

With Gatwick being the focus of the analysis, an appropriate set of comparator airports were drawn from the UK. They exclude Gatwick's largest London peer, Heathrow, as that airport is regulated under a separate, formal regime, the most recent quinquennium settlement (H7) which has just recently been formally set. All the next largest airports in the UK have been included, ranging from Stansted and Manchester, through Birmingham and Edinburgh, to Luton, Bristol, and Glasgow. London City and Southend are excluded, as are all smaller UK airports. This selection has been largely based on appropriateness of profile relative to Gatwick. We recognise that each airport has unique characteristics stemming from size, passenger, and airline mix, as well as physical infrastructure attributes and limitations. Where these are considered material in the context of benchmarking, they have been highlighted in our commentary.

The time-period of the analysis is the last decade – from 2011 to 2022 inclusive. However, both the recent COVID-19 pandemic and its exceptional impacts on the aviation industry, including UK airports, as well as differing accounting periods for the airports in question, make comparisons challenging. Recognising the truly exceptional nature of the last three years, the report is focused on the period preceding the pandemic, using 2019 as the last full year of 'normal' operations and performance. However, for completeness, and to bring the analysis to the present day, subsequent years' data are included and a snapshot from 2022 is incorporated where it is available.

1.2 Selected Metrics

Selecting the most appropriate measures for benchmarking profitability has been a key area of focus for this analysis and it has been done in consultation with the CAA team. Selected metrics consider airport industry practice and reflect the specific nature of airport infrastructure with a range of revenue streams and capital and operating expenditures.

No single measure of profitability or return is without limitations; therefore, a range of indicators have been considered and included.

Contextualising the profitability measures is also important. In isolation, simply reporting a financial ratio may provide an incomplete view or worse still, mislead the reader. However, we have sought to avoid elements of judgment on the reasons for relative performance or the appropriateness of any absolute figures.

The selected key measures are set out in Table 1 below:

Table 1: Key comparator metrics used in this report¹

Profitability Metrics	
EBITDA Margin (EM)	%, absolute and per passenger
Adjusted Operating Profit Margin (OPM) ²	%, absolute and per passenger
Net Profit Margin (NPM)	%, absolute and per passenger
Returns Metrics	
Return on Capital Employed (ROCE)	%
Return on Fixed Assets (ROFA)	% (with and without intangible assets)
Contextual Metrics	
Passenger Numbers	Financial years, calendar years, monthly, domestic/international
Aviation Revenue	Nominal and Real, and per passenger ¹
Commercial Revenue	Nominal and Real, and per passenger ¹
Operating Expenditure	Nominal and Real, and per passenger ¹
Capital Expenditure	Nominal and Real, and per passenger ¹

1.3 Summary Findings

1.3.1 Introduction

Over the period 2011 to 2019, UK airports enjoyed a period of relative stability and growth, where passenger volumes grew at 3.8% CAGR on average in the UK. The airports in the benchmark group which are some of the largest in the UK, grew above the market average, at 5% CAGR during the same period.

Commensurate with this, aviation revenues and commercial revenues also grew, and as a group, the airports in the benchmark sample were generally able to realise implied operating cost efficiencies and increased returns on their fixed assets and their capital employed.

1.3.2 Contextual Metrics

Annual passenger numbers are used to normalise the key revenue and cost metrics in this analysis. passenger numbers have been used as they are considered the primary driver of revenues and costs and are recognised as the most important sector-specific, non-financial or contextual metric in benchmarking airports.

Key findings include:

- With over 45 million passengers (mppa) in 2019, Gatwick is the largest airport in our comparison group in terms of passenger volumes. The next closest are Manchester and Stansted with slightly under 30 mppa each in the same year.
- At an average of 4.1% per annum between 2011 and 2019, Gatwick's annual passenger growth rate was at the lower end of the comparison group, with growth slowing as the single-runway airport pushed up against infrastructure capacity constraints. However, the airport still added the most annual passengers of any in the group, at almost 13 million additional passengers between 2011 and 2019.
- The mix of aviation and commercial revenues varies between airports; typically, 50-60% is commercial revenue. There are some changes through the analysis period with a higher proportion of commercial revenues after 2015 for Luton, Stansted, and Manchester; but this does not appear to be correlated with higher levels of operating profit.
- Operating expenditures have decreased in real terms per passenger between 2011 and 2019 with most airports in the peer group appearing to have realised some relative operating cost efficiencies. This is likely driven by the increase in passenger numbers and higher levels of infrastructure utilisation for all airports, albeit at different rates of passenger growth.

¹ Note that these metrics have been CPI adjusted to 2019 prices.

² The magnitude and impact of investment property revaluations is also illustrated in section 3.2.4.

1.3.3 Profitability Metrics

This report uses three main profitability metrics, the most important for this report is the 'Adjusted Operating Profit Margin' (OPM). In the context of this report, an 'Adjusted Operating Profit Margin' is defined and utilised, as the best proxy for a normalised or underlying operating profit and as a measure of 'Return' for Return metrics.

This ensures that as many unusual, exceptional, or significant items (as identified by management) on the face of the financial statements, have been excluded after appropriate consideration in order to achieve the most accurate and comparable resulting values for this report. The metrics are therefore limited to this report and its' use and may not be appropriate for other purposes.

This approach supports a view of the normalised or underlying operating profitability and is used in other measures as 'Return'. The other profitability metrics are EBITDA and Net Profit Margin.

Note that this report also includes references to 'operating profit' which is specifically referring to the line item identified on the face of the financial statements, which is not the same as 'Adjusted Operating Profit Margin (OPM)' as described and explained above.

Key findings include:

- Both absolute and marginal measures of Adjusted Operating Profit have generally trended upwards across the benchmark group of airports over the period 2011 to 2019.
- The most profitable airport using OPM is Edinburgh, which had an increase in long-haul carriers and the frequency and range of European short-haul services in the latter years of this period, as well increases in commercial revenue and reductions in operating costs per passenger; both of which were driven by increased passenger numbers (discussed in more detail on page 21 and Section 3). An exception, and lowest in the peer group, was Bristol Airport with slowing rates of passenger growth after 2016, and higher depreciation and amortisation charges following acquisition in 2015.
- Gatwick has largely demonstrated consistent growth across financial and contextual metrics in this report. For most of the metrics, Gatwick is in the top two or three airports in our comparison group in both absolute value and real average annual growth. In 2019, Gatwick's EBITDA per passenger was £10 (55% margin), operating profit per passenger was around £6 (34% margin) and net profit per passenger was £3.60 (20% margin). Changes over time and relative ranking compared to benchmark peers are discussed in the main body of the report.

1.3.4 Returns Metrics

Returns focus on the 'return on capital' that the airport assets can generate for shareholders. These measures use our view of OPM as 'Return'. Despite using this normalised view of returns, they are still more variable than other measures in percentage terms. There is an inherent degree of variability in these measures due to year-to-year financial returns and the potential for some airports to have various corporate arrangements or associated group structures. Where possible this report has considered, highlighted, and in some cases excluded these corporate arrangements to enhance comparability, as noted throughout.

Luton Airport, for example, was excluded from analysis in this section due to its concessionary arrangements and asset ownership.

Key findings include:

- There is a high degree of variance in the Return on Capital Employed (ROCE) during the analysis period (between 1.4% and 16.1% for our airport peers). In general the ROCE indicates a clear clustering of expected returns (using the OPM measure) of between 4%-8% between 2011-2015, before increasing to a range of approximately 7%-11% for the rest of the pre-pandemic period.
- Return on fixed assets shows a similar trend, although the returns percentage is less clearly clustered throughout the analysis period. For almost all airports between the start and the end of the analysis period the ROFA measure improves and is between 7.4% and 12.6% by 2019. The exceptions to this are Manchester and Bristol Airports.

1.3.5 Summary

Across all three of the main groups of metrics within this report, all airports in the peer group generally benefited from the increases in passenger numbers in the UK. There are some limited exceptions and outliers in translating this through to higher profitability and returns.

Gatwick is amongst the top-performers across the metrics within but shows signs of exhausting its potential capacity as passenger growth and operating cost efficiencies begin to plateau toward the end of the 2011 to 2019 reporting period.

The same contextual, profitability and returns measures are presented for 2020 to 2022; however due to the exceptional variability of passenger volumes and airline and airport managements' ability to respond to travel shutdowns and re-starts, it is not possible to draw robust conclusions from the benchmarking during these years.

2 Introduction to the Benchmarking Analysis

2.1 Purpose of the Benchmarking Analysis

The CAA's economic regulation of Gatwick Airport Limited (GAL) is based on a light touch approach underpinned by a set of 'commitments' that include a cap on the average aeronautical charge per passenger implied by GAL's published tariffs, a set of service quality targets and rebates, and a minimum investment requirement. The first set of commitments operated from April 2014 to March 2021. They were replaced in 2021 by a new set of commitments that expire in March 2025. Following consultation with airlines in 2022, GAL has put forward for the CAA's review a proposal to extend the current commitments by a further four years.

In the context of this proposal and its review by the CAA, PA Consulting have been engaged to undertake a desk-based data analysis and benchmarking exercise of GAL's profitability and other performance indicators (such as changes over time in costs and charges) with a selection of large UK airports not subject to *ex ante* regulation.

The purpose of this analysis has been to collect data and present it in a comparable format – as far as possible – for several relevant UK airports to provide appropriate context for GAL's financial performance over the last decade or so. The PA team have been expressly asked not to provide an assessment of the airports' performance, or to provide commentary regarding any 'reasonableness'; instead providing a fully independent, factual, and as-far-as possible comparable set of metrics to support the CAA's review activities.

2.2 Selecting the Sample Airports

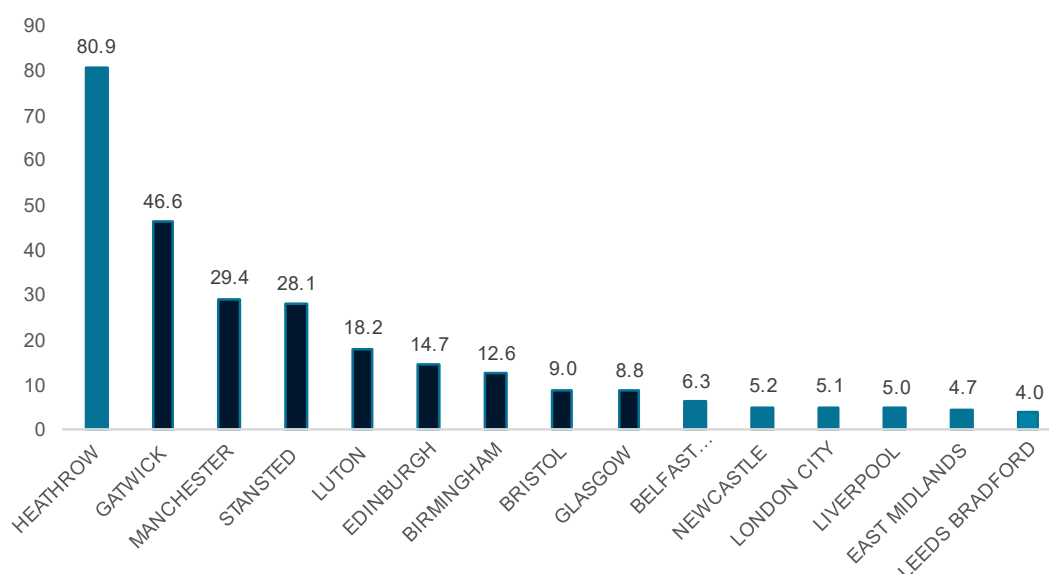
Given the context for the analysis, the peer group was selected based on:

- being a UK airport,
- not being regulated under the RAB-based regulation of Heathrow,
- handling predominantly commercial passenger traffic of a meaningful volume (~5 million passengers per annum, mppa), and
- publishing financial and operational data during the time period in question (2011 to 2022).

The selected airports meet these criteria for most years, although there are some gaps in earlier years, which we note throughout.

For market context, we identify the sample airports on the following chart, which shows 2019 annual passenger numbers for the top 15 UK airports. The passenger data for the 15 airports shown below account for 94% of all UK airport passengers in that year.

Figure 1: 2019 Annual passengers at 15 largest UK airports, Millions³



Although airports can vary enormously in terms of scale and profile of operations, annual numbers of passengers handled is an appropriate proxy for scale because:

- Passenger numbers are closely positively correlated with infrastructure needs (and thus Capital Expenditure) and operating expenses.
- Passengers are typically the main driver for both aeronautical and non-aeronautical revenues.
- Large differences in passenger numbers (e.g., a 1 mppa airport versus a 20 mppa airport) will typically have characteristics that make comparison inappropriate – as such, using mppa as one of the criteria for peer selection is considered appropriate.

There are limitations of course in comparing solely based on total annual passenger volumes. Airline and passenger mix will have significant implications for both the infrastructure and service level requirements at an airport, as well as the aeronautical and commercial revenues that can be commanded. For example, an airport catering purely for short-haul, low-cost carrier (LCC) leisure traffic, will typically require less complex airside and landside infrastructure and generally more modest service levels than an airport catering to long-haul business class passengers, connecting passengers as well as low-cost point-to-point services in the same facility.

In the benchmark group, Gatwick is substantially larger in terms of passenger numbers than its next peers (only Heathrow is a larger airport in the UK, and that is excluded from the analysis on the grounds of its different regulatory framework).

It is not however the only airport in the group with long-haul, as well as short-haul operations – Manchester, Stansted, Edinburgh, Birmingham, Glasgow all have varying levels of widebody aircraft serving longer-haul markets. Bristol and Luton do not have long-haul widebody operations.

Other factors such as ownership structure, which can in turn affect accounting treatments⁴ can also impact comparability of accounting data between airports. For instance, Luton Airport's concession model means substantial payments are made to the freehold owners. We discuss the changing ownership of the airports in the sample in the following section of the report and highlight the implications and treatment of the results in the findings section.

³ Source: UK CAA.

⁴ For instance, a parent or entity in the group might lease buildings, back to the subsidiary (the holding company operating the airport) or may charge an operating fee and/or receive a shareholder dividend from the subsidiary operator's profits.

2.3 Data Sources

Data was collected from financial statements sourced from either Companies House or directly from the airports' websites across a 12-year period from 2011 to 2023, where available. Details of the sources of airports financial statements are provided in the table below.

Table 2: Airport data sources used in the benchmarking analysis

#	Airport	Airport name	Financial Statements	Source (Accounts)	Company Number/s
1	LGW	London Gatwick	2011/12 – 2013/14 (Apr – Mar)	Gatwick Airports Ltd	01991018
			2014/15 – 2018/19 (Apr – Mar)	Ivy HoldCo Ltd. Ivy HoldCo Ltd.	07497036
			2019 – 2023 (Jan – Dec)		07497036
2	MAN	Manchester	2011/12 – 2022/23 (Apr – Mar)	Manchester Airport Plc.	01960988
3	STN	London Stansted	2011 – 2014 (Jan – Dec)	Stansted Airport Ltd.	01990920
			2014/15 – 2022/23 (Apr – Mar)		
4	LTN	London Luton	2011 – 2023 (Jan – Dec)	London Luton Airport Operations Ltd.	03491213
5	EDI	Edinburgh	2011 – 2023 (Jan – Dec)	Edinburgh Airport Ltd.	SC096623
6	BHX	Birmingham	2011/12 – 2022/23 (Apr – Mar)	Birmingham Airport Holdings Ltd.	03312673
7	BRS	Bristol	2013 – 2023 (Jan – Dec)	Bristol Airport (UK) No.3 Ltd.	05403024
			2011 – 2013 (Jan – Dec)	South-West Airports	05403045
8	GLA	Glasgow	2011 – 2023 (Jan – Dec)	Glasgow Airport Ltd.	SC096624
9	-	Manchester, Stansted, East Midlands, and Bournemouth	2011/12 – 2022/23 (Apr – Mar) <i>Note: During this period Stansted was purchased in February 2013 and Bournemouth sold in 2017.</i>	MAG (Manchester Airport Holdings Ltd.)	08353309

2.4 Airport Ownership Context

In this subsection, we highlight the different ownership structures for each airport in our comparison group. We focus particularly on the dates at which ownership has changed and group structures which affect financial reporting.

Gatwick

Gatwick was bought from the British Airports Authority (BAA) by a conglomerate of international investors on 3rd December 2009. This conglomerate was made up of group led by Global Infrastructure Partners (GIP) as well as investors from Abu Dhabi, Korea, and the US. In its accounts for the year 2010 it changed

from calendar year end to a year-end of 31st March 2010 for the purposes of aligning financial and regulatory year ends.

In May 2019, Vinci airport holdings acquired a 50.01% majority holding of Gatwick. The remaining 49.99% being held by the pre-existing conglomerate.

Manchester Airport Group

MAG is a holding company which is owned by the ten metropolitan borough councils of Greater Manchester and Australian investors IFM Global Infrastructure Fund. The split of ownership is as follows: Manchester City Council (35.5%), IFM Global Infrastructure Fund (35.5%) and the nine other Greater Manchester local authorities (29%).

At the time of writing this report, MAG owns and operates three UK airports - Manchester, London Stansted and East Midlands. Key events in MAG's ownership and operating structure are:

- In August 2012, MAG sold its share of Humberside Airport for £2.3 million to the Eastern Group. North Lincolnshire Council retains a minority of share of the Airport.
- In February 2013, MAG purchased London Stansted Airport for £1.5 billion at the same time IFM Investors took a 35.5% stake in MAG.
- In December 2017, MAG sold Bournemouth Airport to Regional & City Airports (RCA), the airports management division of Rigby Group plc.

We have discussed with the CAA whether to analyse Manchester and Stansted Airports separately or in a combined form. On reflection, a decision was made to do both. Manchester and Stansted's individual accounts do not fully account for all capital items that are held by MAG that affects returns/profitability comparisons of the main airport sites. For instance, MAG has a substantial property business across its airport sites and an additional 50% ownership of the Airport City development at Manchester Airport. A key element of this is identified in part in MAG's accounts as 'MAG property' and has its own set of accounts published at Companies House which carry a core balance sheet, but no income or cashflow statements. MAG property division accounts for roughly 3.5% of MAG revenues and approximately 8% of EBITDA.

Luton

Luton Airport is operated under a concession agreement whereby London Luton Airport Operations Limited (LLAOL) are responsible for the operation and development of the airport with the local authority, Luton Borough Council, retaining ownership of the bulk of the Airport's asset base within an un-related entity called London Luton Airport Limited (LLAL). This arrangement means that the Airport Asset base is lower than other airports (c.£1.5bn held in LLAL). The impact on this report is that Luton's returns on its' asset base appear far higher than the peer group, and as a result has been excluded in the returns measures section to aid comparability.

The concession agreement was established in 1998. The current owner of LLAOL is the AENA Infrabridge partnership. AENA are a specialised airport management company and hold 51%. Infrabridge, a private equity investor owns 49%. Infrabridge bought into the airport in June 2018 and purchased their share from Ardian which had held an equity stake since 2013.

Edinburgh

Edinburgh Airport was acquired from BAA by Global Infrastructure Partners (GIP) in 2012. As flagged above, GIP also own a minority stake in Gatwick airport. Since the GIP acquisition, Edinburgh airport has not changed ownership or received further investment from another party over the period for which this analysis is conducted (2011 to 2022).

Birmingham

In September 2007 Macquarie Airports Group and Aer Rianta sold their 48.25% in the Airport to the 'Airport Group Investments Ltd' (AGIL) for £420 million. AGIL is a limited company owned by Ontario Teachers' Pension Plan and Victorian Funds Management Corporation. The current shareholding arrangement is as follows: Seven West Midlands district councils (49%), Ontario Teachers' Pension Plan and Australia's Victorian Funds Management Corporation (48.25%). In addition to this there is an employee share ownership plan that holds 2.75% of the shares. Birmingham airport has not changed ownership over the period for which this analysis is conducted (2011 to 2022).

Bristol

Bristol Airports Limited was part of the South West Airports Group until it fully consolidated in 2015 into the Bristol Airport (UK) No. 3 Ltd. Group. For analytical and comparability purposes we transition from South West Airports to Bristol Airport (UK) No. 3 Ltd fully in 2015. Bristol Airport's website states that the airport is owned by the Ontario Teachers' Pension Plan (OTPP) who have been an investor since 2001. There are also minority interest holdings from the New South Wales Treasury Pension Corp, the Australian Retirement Trust and Stepstone. The OTPP purchased an additional 50% of the airport from the Macquarie Group in 2014.

Glasgow

AGS Airports Ltd acquired Glasgow airport from BAA in 2014. AGS are a joint venture between Ferrovial (via Faero UK Limited) and AGS Ventures Airports Limited, an entity controlled by Macquarie European Infrastructure Fund 4 LP. Both entities hold equal shares in the airport. Beyond the acquisition from BAA, Glasgow airport has not changed ownership or received further investment from another party over the period for which this analysis is conducted (2011 to 2022).

2.5 Ensuring Comparability

Benchmarking is never straightforward, especially where financial statements are concerned, given the different approaches taken by different entities, varying definitions for similar terms, and often different time periods being reported. Every effort has been made to ensure consistent comparability between the airports in the sample group; however, this has involved professional judgement, and it is possible that different approaches may yield slightly different results. We have aimed to be clear and transparent in both the sources and the treatments applied; most of these are summarised in this following section; specific cases are highlighted in subsequent chapters.

2.5.1 Market Context and Implications for the Benchmarking Approach

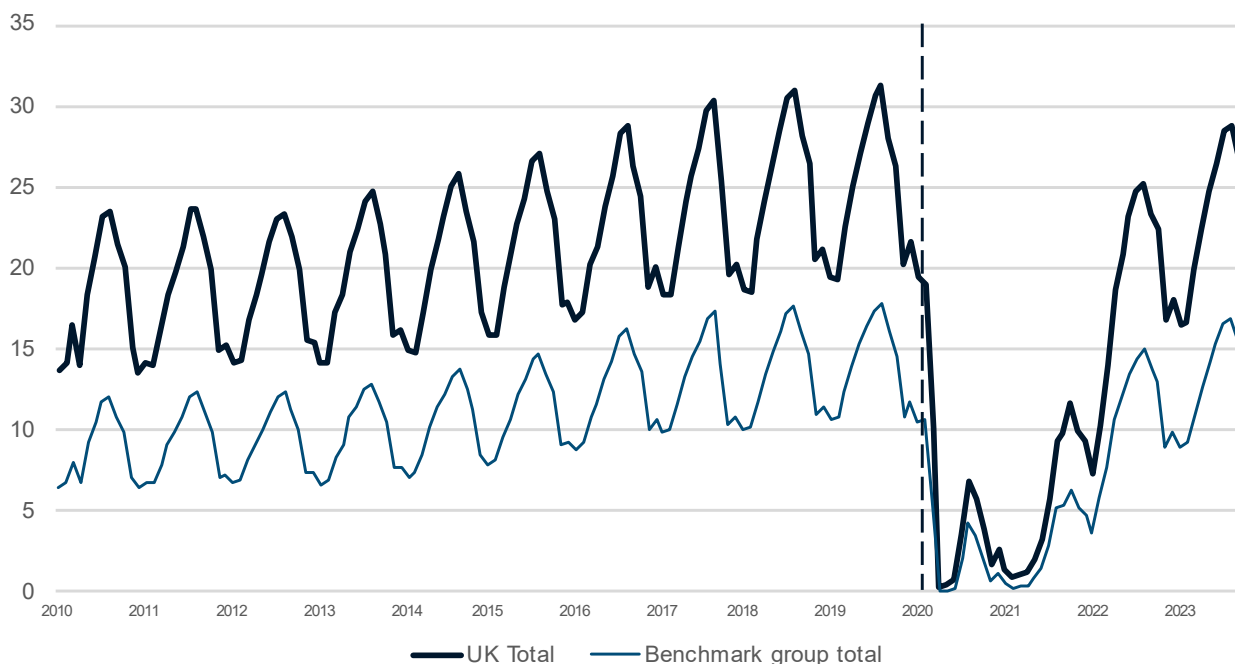
The last three years have been arguably the most turbulent and exceptional in modern passenger aviation history, owing to the impacts of the COVID pandemic. As shown below, compared to the steady trend of preceding decade, March 2020 onwards saw the almost complete collapse of commercial aviation activities in the UK. Volumes remained exceptionally low during 2020 and much of 2021, with recovery commencing in earnest in summer 2022. As of Q4 2023 total volumes are nearing pre-pandemic levels but not all airports are recovering at the same pace.

For the purposes of this benchmarking analysis, we have split the time-period in two:

1. up to and including 2019 (FY19/20 where appropriate, although we note where FY19/20 numbers are impacted by the Q1 2020 slowdown ahead of the first COVID-19 lockdown in March 2020), and
2. 2020 to date (FY20/21 where appropriate).

The first period may be considered a more 'normal' picture of historical performance, while the second period is the most recent.

Figure 2: Monthly total airport passengers at UK airports, January 2010 to September 2023, Millions⁵



2.5.2 Accounting Periods

Of the Airports reviewed, the financial years and calendar years differ, and therefore to show the most alignment between data from the financial accounts we have adjusted which time period each airports financial accounts data falls into, so as to minimise the impact of airport accounting periods not being all co-terminus.

Table 3: Benchmark airports’ financial years, calendar years and accounting periods reference table

UK Airport Financial Years, Calendar Years and Accounting Period Reference Table												
Financial Years	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Calendar Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Periods												
Birmingham	12mths to 31/03/12	12mths to 31/03/13	12mths to 31/03/14	12mths to 31/03/15	12mths to 31/03/16	12mths to 31/03/17	12mths to 31/03/18	12mths to 31/03/19	12mths to 31/03/20	12mths to 31/03/21	12mths to 31/03/22	12mths to 31/03/23
Manchester Airport Group (MAG)	12mths to 31/03/12	12mths to 31/03/13	12mths to 31/03/14	12mths to 31/03/15	12mths to 31/03/16	12mths to 31/03/17	12mths to 31/03/18	12mths to 31/03/19	12mths to 31/03/20	12mths to 31/03/21	12mths to 31/03/22	12mths to 31/03/23
Manchester	12mths to 31/03/12	12mths to 31/03/13	12mths to 31/03/14	12mths to 31/03/15	12mths to 31/03/16	12mths to 31/03/17	12mths to 31/03/18	12mths to 31/03/19	12mths to 31/03/20	12mths to 31/03/21	12mths to 31/03/22	12mths to 31/03/23
Stansted	12mths to 31/12/11	12mths to 31/12/12	15mths to 31/03/14	12mths to 31/03/15	12mths to 31/03/16	12mths to 31/03/17	12mths to 31/03/18	12mths to 31/03/19	12mths to 31/03/20	12mths to 31/03/21	12mths to 31/03/22	12mths to 31/03/23
Gatwick	12mths to 31/03/12	12mths to 31/03/13	12mths to 31/03/14	12mths to 31/03/15	12mths to 31/03/16	12mths to 31/03/17	12mths to 31/03/18	12mths to 31/03/19	9 or 12 mths to 31/12/19	12mths to 31/12/20	12mths to 31/12/21	12mths to 31/12/22
Luton	12mths to 31/12/11	12mths to 31/12/12	12mths to 31/12/13	12mths to 31/12/14	12mths to 31/12/15	12mths to 31/12/16	12mths to 31/12/17	12mths to 31/12/18	12mths to 31/12/19	12mths to 31/12/20	12mths to 31/12/21	12mths to 31/12/22
Edinburgh	12mths to 31/12/11	12mths to 31/12/12	12mths to 31/12/13	12mths to 31/12/14	12mths to 31/12/15	12mths to 31/12/16	12mths to 31/12/17	12mths to 31/12/18	12mths to 31/12/19	12mths to 31/12/20	12mths to 31/12/21	12mths to 31/12/22
Bristol	12mths to 31/12/11	12mths to 31/12/12	12mths to 31/12/13	12mths to 31/12/14	12mths to 31/12/15	12mths to 31/12/16	12mths to 31/12/17	12mths to 31/12/18	12mths to 31/12/19	12mths to 31/12/20	12mths to 31/12/21	12mths to 31/12/22
Glasgow	12mths to 31/12/11	12mths to 31/12/12	12mths to 31/12/13	12mths to 31/12/14	12mths to 31/12/15	12mths to 31/12/16	12mths to 31/12/17	12mths to 31/12/18	12mths to 31/12/19	12mths to 31/12/20	12mths to 31/12/21	12mths to 31/12/22

Accounts = Calendar Year
Accounts = Financial Year
Long or Short Period of Accounts

In the case of Stansted and Gatwick, there is a transition due to changes in the accounting period that shift the Airports Financial Accounts from Calendar Years to Financial Years (in the case of Stansted) or

⁵ Source: UK CAA passenger statistics.

vice versa (in the case of Gatwick). For these two airports, there is a short and long accounting period included.

Specifically for Gatwick in 2019, this report uses the un-audited 12-month calendar year figures for revenue and cost provided in the 2020 Gatwick accounts. These figures are un-audited and were included to aid the readers of the financial accounts. For the purposes of this report, we have used these available figures to improve comparability and give a 2019 12-month calendar year view for key profitability and return metrics where possible. Most notably, these un-audited figures are used in the EBITDA and adjusted operating profit margin (OPM) metrics, and all Returns metrics. These accounts do not include restated values for all the metrics included in this report (e.g., net profit margin).

This approach ensures that we maximise the comparability of the financial information across the selected airports for benchmarking purposes.

2.5.3 Definitions and Adjustments

In addition to the above timing considerations, there are a small number of additional implications to note regarding the use of the financial accounts. These include:

- **Restated accounts** – the restated financial values have been used where the accounts disclose prior year values in the subsequent years' financial accounts as having been restated. This is to ensure the maximum comparable period of the same accounting disclosures. Generally, restatements instances are due to the transition to IFRS from UK GAAP reporting standards.
- **Consolidated accounts** – the consolidated airport accounts have been used where the group appears to be more representative of the entirety of the Airport's operations. On balance the use of consolidated accounts will show asset values that are more comparable across the sample than using the values in individual company accounts, which may have different corporate structuring arrangements. This report has sought to minimise the differences in corporate structures through this approach.
- **Aligned passenger numbers data** – utilised the CAA data to complete gaps in disclosures made in the accounts to ensure that the passengers numbers data aligns to the accounting period as reported for analysis.
- **Exceptional items have been identified** – based on management's identification of exceptional items on the face of the financial statements. We have not sought to define exceptional items in of themselves. Exceptional items identified generally fall into one of four categories:
 - Impairments to Fixed Assets
 - Restructuring Costs
 - Pension Scheme Revaluations
 - Coronavirus Job Retention Scheme Income
- **Investment property revaluations** – when listed after operating profit, investment property revaluations are treated as a separate adjustment that is removed from EBITDA, adjusted operating profit, but not net profit. Given the accounting frameworks used by the airports in this sample (across both IFRS and UK GAAP), investment property revaluations, if clearly present in the accounts, are listed after operating profit. A detailed discussion of the treatment of this item is provided in Section 3.2.4.
- **Gatwick 9-month accounting period** – in the case of Gatwick, we opted to take the 12-month view of income and expenditure items as disclosed in the 2020 accounts from the restated accounting notes. If this was not done, there would be a negative impact on comparability that would occur if 9 months data was used for Gatwick instead of 12 months in 2019. This would also introduce an element of seasonality, particularly where flight and passenger numbers in Jan-March are substantially different to annual average. This was not possible to do for the balance sheet, and therefore metrics that include these elements were only possible to use values at the end of the 9-month accounting period. It is not felt that there is such a significant change in balance sheet items that might materially impact our analysis, but it is a relatively minor issue in comparability.
- **Bristol 2014 SWAL consolidation** – due to the consolidation, Bristol's 2014 data was skewed. To ensure the comparability of the Bristol data over time, and that of the sample as a whole, Bristol's 2014 data is often represented through a break in the line graphs and an empty value in tables. However, contextual metrics such as passenger numbers and revenues (aviation, commercial, and

total) have been calculated by using data on the corresponding yields and passenger numbers contained in Bristol's 2014/15 accounts.

2.5.4 Choosing the Metrics for the Comparison Group

To most effectively highlight and understand the drivers for profitability across the airport peer group, analysis was performed on a set of metrics to focus on three main areas: Profitability (or Margin), Return and the broader operational contextual metrics.

- Profitability (or Margin) and Return metrics are commonly used and focus on the ability of companies to generate sustainable trading incomes.
- Contextual metrics, such as passenger numbers, are specifically applied to make sense in the context of understanding airport profitability, and to allow a like-for-like comparison across airports, using something other than financial values in the accounts.

There is not necessarily a correct formula for any metric, and therefore the definitions, whilst generally accepted and understood, can be interpreted, or calculated using different components or sub-components.

In the context of this report, an 'Adjusted Operating Profit and Margin' is defined and utilised, as the best proxy for a normalised or underlying operating profit and as a measure of 'Return' for Return metrics.

This ensures that as many unusual, exceptional, or significant items (as identified by management) on the face of the financial statements, have been excluded after appropriate consideration, to achieve the most accurate and comparable resulting values for this report. The metrics are therefore limited to this report and its' use and may not be appropriate for other purposes. Table 4 on the next page provides detail of the key metrics. Further detail of the relevant metrics and how best to interpret them are explored in the relevant sections.

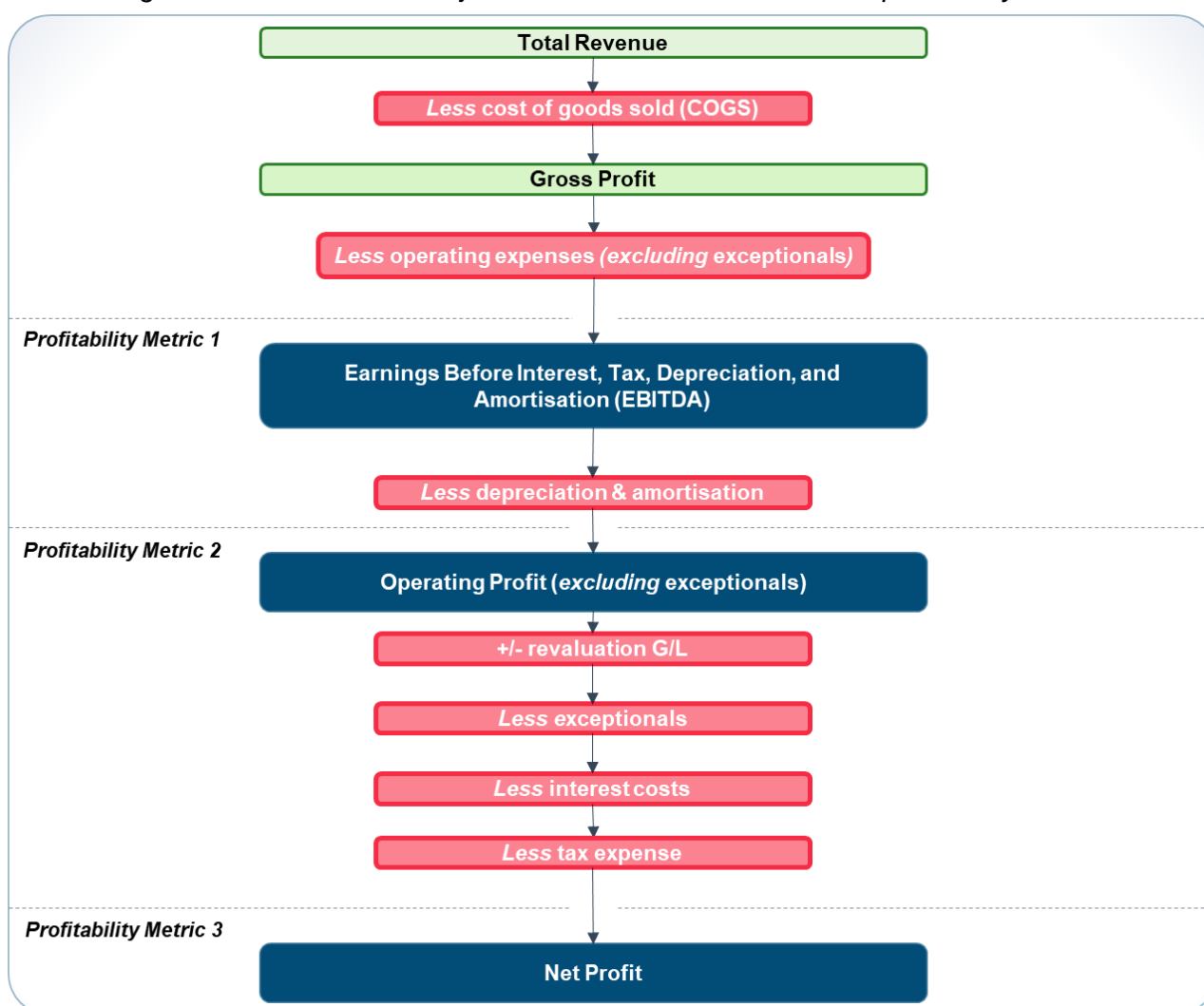
Table 4: Key metrics used in the benchmarking analysis⁶

Measure	Description	Formula
Profitability metrics		
EBITDA Margin (EM)	In this context, reflects an airport's ability to generate Revenue after accounting for direct costs of running the airport. It excludes financing, taxation, and non-cash charges such as depreciation and amortisation.	$EM (\%) = \frac{EBITDA}{Total\ Revenue}$
Adjusted Operating Profit Margin (OPM)	A measure of an airport's profitability after accounting for the direct and indirect costs of running the airport. Diverging from EBITDA, this metric includes depreciation. We have termed 'Adjusted Operating Profit, because of some limited exclusions where disclosed as exceptional items to ensure greater comparability between airports. This measure is also the 'Return' measure.	$OPM (\%) = \frac{Adjusted\ Operating\ Profit}{Total\ Revenue}$
Net Profit Margin (NPM)	A bottom-line measure, that reflects an airport's profitability after accounting for all expenses, additional forms of income or expense and taxation. This metric includes costs such as interest or financing costs, depreciation and amortisation, and investment property revaluations. Section 2.5.5. provides further detail into which items are included in each of the metrics in this table.	$NPM (\%) = \frac{Net\ Profit}{Total\ Revenue}$
Return metrics		
Return on Capital Employed (ROCE)	Specifically focuses on the efficient use of assets. Capital employed represents all capital that is part of the business.	$ROCE = \frac{Adjusted\ Operating\ Profit}{(Total\ Assets - Current\ Liabilities)}$
Return on Fixed Assets (ROFA)	Provides a view on how efficiently a company uses its' fixed asset base to generate profits.	$ROFA = \frac{Adjusted\ Operating\ Profit}{Total\ Fixed\ Assets}$
Return on Tangible Fixed Assets (ROFA-I)	Provides a view on how efficiently a company uses its' tangible fixed asset base to generate profits.	$ROFA-I = \frac{Adjusted\ Operating\ Profit}{Total\ Tangible\ Fixed\ Assets}$

⁶ More detailed definitions are provided in the Appendix.

Contextual metrics		
Aviation Revenue	Aviation Revenue OR Airport and other traffic charges as defined in the respective accounts.	Part 1 of 2 Total Revenue
Commercial Revenue	Retail, Car Parking, Property, and Other.	Part 2 of 2 Total Revenue
Operating Expenditure	This is sourced from company data on operating costs – mostly comprised of staff costs, but also includes other costs such as insurance premiums and utilities spend. Depreciation and amortisation have been removed from our calculations of operating costs in line with the economic regulatory approach of CAA. This contrasts to standard accounting recognition and practice, and therefore we explain the calculation as 'Adjusted Operating Costs'.	Opex (absolute) & Opex / Total Passengers
Capital Expenditure	Capital expenditure might include refurbishment and new investment costs. Examples include runway resurfacing, baggage system upgrade, security system upgrade etc. Defined as Fixed Asset Additions.	Capex (absolute) & Capex / Total Passengers
Passenger Numbers	Passenger numbers are aligned to the accounting year, to ensure comparison and avoiding seasonality skews. Where it is not possible to utilise passenger numbers, the monthly passenger numbers from the CAA have been used, to calculate the passenger numbers.	As per accounts or other data source as available

Figure 3: Visualisation of adjustments made to calculate each profitability metric*



*Note that this visualisation is a simplified version of a typical Income and Expenditure statement. We may have had to make adjustments as described in this report to ensure we are comparing like-for-like between airports when using profitability metrics. This means that it may not be immediately possible for a user to use the numbers in the accounts to re-construct the profitability metrics without having also considered the adjustments that may be required for an individual airport and in a particular year of their accounts.

2.5.5 Treatment of Exceptional Items

Exceptional items are typically identified in financial statements and can sometimes materially impact margin or return metrics. To ensure comparability, we have identified and, in some cases, excluded these items.

It should be noted that exceptional items are identified as 'exceptional' based on management's judgement, and one airport's management may judge items in different ways. We have not sought to define exceptional items in of themselves and not all 'exceptional items' have necessarily been adjusted out of the operating profit, if for example they did not impact operating profit to begin with.

The exclusion of exceptional items impacts and applies to EBITDA, Adjusted Operating Profit (and therefore 'Return' measures as well), revenue or operating costs (in limited instances as appropriate), but not from net profit (see also discussion in Investment Property revaluation in Section 3.2.4).

Exceptional items that are identified generally fall into one of four categories:

- Impairments to Fixed Assets,
- Restructuring Costs,
- Pension scheme revaluations; or
- Coronavirus Job Retention Scheme.

In the Appendix, we detail each airport's top exceptional items (as identified by management) and discuss the adjustments made.

For Coronavirus Job Retention Scheme (CJRTS) Incomes, it should be noted that whilst they are often described as exceptional, they are correctly recognised as part of the normalised operating profit during this period since they are re-imbursing costs that are being incurred (i.e., a net nil impact to operating expenditure). For these items only, we have not adjusted as an exceptional item, and they are generally recognised against the operating costs. This approach ensures maximum comparability to trading activities and associated operating costs. The same Appendix 1 contains details of these incomes, where they have been disclosed.

2.5.6 Treatment of Inflation

Financial accounts are published each year, and where we reproduce from them exactly, we show financial values in nominal terms.

However, in line with economic regulation practice, the 'per passenger' metrics are all converted to 'real' prices in order to strip out the effects of inflation where identified in the charts and tables.

This has also been applied to absolute measures within the contextual metrics, but not applied to profitability or returns metrics.

Where this conversion is applied, we have used the Office for National Statistics (ONS) Consumer Price Index (CPI) to transform nominal values to real values, using 2019 as the base year.

The inflation indexation applied is presented in Table 5:

Table 5: ONS CPI deflators, 2019 base year⁷

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
86.64	89.15	91.37	92.76	92.76	93.41	95.92	98.24	100.00	100.83	103.53	112.89

⁷ Source: ONS CPI data various years.

3 Findings from 2011 to 2019

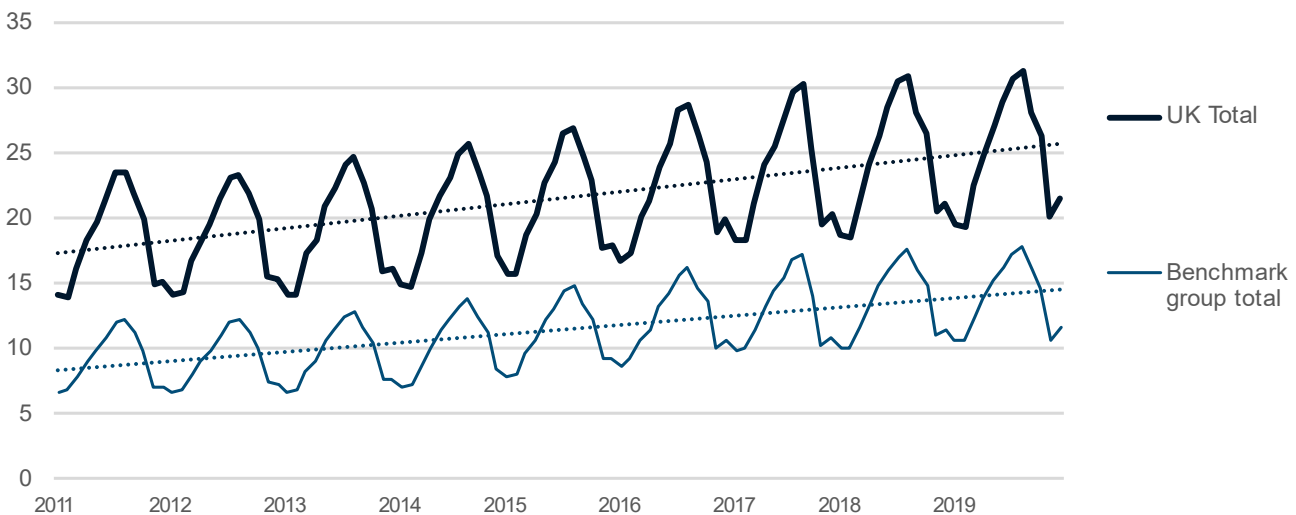
3.1 Introduction

The period 2011 to 2019 was one of strong and sustained aviation growth in the UK. The economy grew at a CAGR of around 2% over these years (in real terms) while total UK airport passengers grew at close to twice that rate, at a CAGR of 3.8%, from an annual total of 220 million airport passengers to 300 million airport passengers.

During the same period the eight airports in the benchmark sample grew at a CAGR of 5%, adding over 50 million annual passengers, from an annual total of 111 million in 2011 to 164 million in 2019. However, at the same time, there was no significant airport expansion implying higher utilisation of the airport asset base.

It is not within the scope of this report to comment on the specific drivers of airport passenger growth. However, it is widely acknowledged that 2011 to 2019 represented a period of sustained growth in this market and was driven by low-cost carrier airlines,⁸ expansion of European short-haul services and relatively speaking for the aviation sector, a straightforward operating environment. By this latter point we mean, the aviation sector had been exposed to a set of large-scale exogenous shocks prior to 2011 e.g. the events of September 11th (2001), the eruption of the 2010 eruptions of Eyjafjallajökull volcano in Iceland, the 2008 global financial crisis etc, and during the following decade it was a relatively stable airport capacity picture, coupled with positive demand growth.

Figure 4: Monthly total airport passengers at UK airports, January 2011 to December 2019, Millions⁹



⁸ The European capacity share of low-cost carriers rose from 22% in 2012 to 31% in 2019 (Source: Eurocontrol).

⁹ Source: UK CAA passenger statistics.

3.2 Profitability or Margin Findings

3.2.1 Introduction

Profitability measures assess the difference between airport revenues and costs, often interchangeably with variations of 'Margin' in terminology. Revenues are typically all the trading activity revenues, with costs generally split between various classifications and each included or excluded in calculating the below measures.

We have used three different profitability measures in this report:

1. EBITDA Margin (EM)
2. Adjusted Operating Profit Margin (OPM)
3. Net Profit Margin (NPM)

By comparing to revenue, the relative marginal gains on revenue allow greater comparability.

Each metric has pros and cons in the context of airport profitability benchmarking, and we describe some of these features and implications in subsequent sections.

Alternative profitability metrics may be used, and some airports define their profitability metrics differently from how we have presented them here. This report adjusts definitions for some measures to maximise comparability over both the analysis periods and the sample group.

3.2.2 EBITDA and EBITDA Margin

EBITDA represents the operating income of the airport before accounting for financing and capital costs.

The published financial accounts reviewed for the peer group do not always specifically identify EBITDA. In these cases, we have identified the EBITDA to apply based on a calculation of operating profit, adding back depreciation and amortisation as a minimum. In some cases, other elements of exceptional or significant items are disclosed by management as part of operating profit, which have also been added back as necessary and appropriate to ensure a higher degree of comparability.

Definition applied to EBITDA Margin

The formula we apply for EBITDA Margin is as follows:

$$EM (\%) = EBITDA / Total Revenue$$

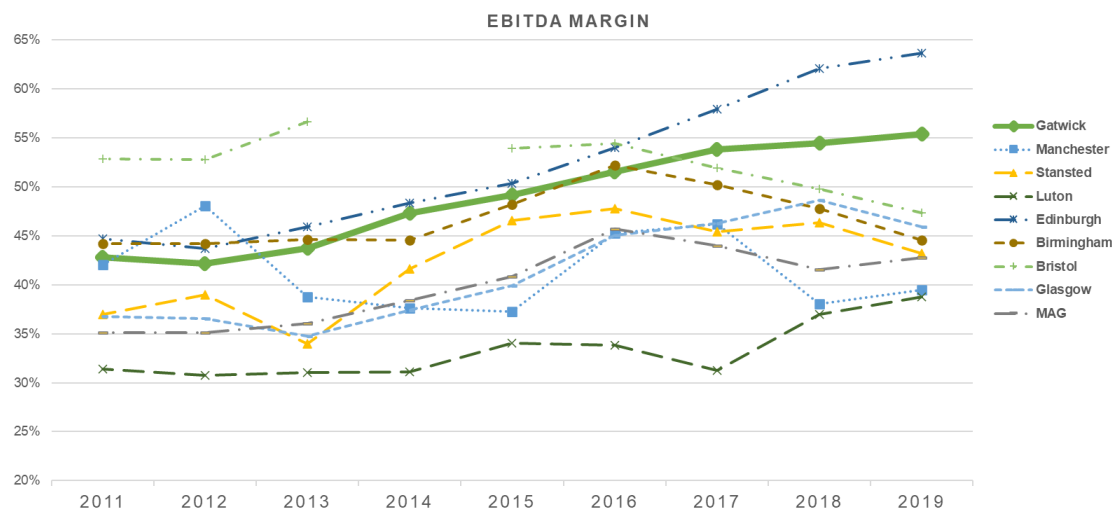
Figure 5: Nominal EBITDA and EBITDA Margin summary results for benchmark airports, 2011-2019 ^{10,11,12}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	222	227	259	302	331	374	411	441	473	9.9%
Manchester	127	155	137	146	155	173	191	174	173	3.9%
Stansted	87	94	100	114	133	143	151	166	158	7.8%
Luton	35	36	38	40	50	55	56	74	88	12.1%
Edinburgh	49	48	54	63	73	89	107	127	141	14.0%
Birmingham	46	48	51	54	63	76	78	77	71	5.6%
Bristol	33	32	35		43	49	52	56	55	6.8%
Glasgow	30	32	32	36	41	51	56	62	58	8.6%
MAG	131	144	242	284	318	339	360	358	382	14.3%
<i>Wght. avg ex MAG</i>										8.6%

¹⁰ Source: First table, PA Calculations, Airport annual financial statements.

¹¹ Note to chart: Bristol data excluded for year 2014.

¹² Source: Second table, Airport financial statements, PA Analysis.



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	42.8%	42.1%	43.7%	47.3%	49.2%	51.5%	53.8%	54.4%	55.4%
Manchester	42.0%	48.0%	38.8%	37.6%	37.3%	45.2%	46.2%	38.1%	39.5%
Stansted	36.9%	39.0%	33.9%	41.6%	46.5%	47.8%	45.4%	46.4%	43.2%
Luton	31.4%	30.7%	31.1%	31.1%	34.0%	33.8%	31.3%	37.0%	38.8%
Edinburgh	44.7%	43.7%	45.9%	48.3%	50.3%	54.0%	57.9%	62.1%	63.6%
Birmingham	44.2%	44.2%	44.6%	44.5%	48.2%	52.2%	50.2%	47.8%	44.5%
Bristol	52.8%	52.8%	56.6%		53.9%	54.4%	51.9%	49.8%	47.3%
Glasgow	36.8%	36.5%	34.7%	37.4%	39.9%	45.1%	46.2%	48.7%	45.9%
MAG	35.1%	35.1%	36.0%	38.4%	40.8%	45.7%	44.0%	41.5%	42.8%

Key Insights and Findings

- The EBITDA margin of the sample airport group trends upwards over the sample period, and generally exhibits a range of 20-30% difference between the lowest and highest margins. In 2011 the highest EBITDA margin was observed at Bristol airport, at 53%, while in 2019 it was Edinburgh airport, at 64%.
- Across the airports included in the sample, (nominal) EBITDA growth ranges from 3.9% to 14.3% CAGR over the period, with an average EBITDA growth of 8.6% per annum. MAG and Edinburgh experienced the highest and second highest growth rates, at 14.3% and 14% respectively. All airports have a higher EBITDA in absolute and real terms in 2019 than at the beginning of the period of comparison of 2011.
- At the start of the benchmark period, Gatwick's EBITDA margin stands third in the peer group range. Over the subsequent eight years, it rises steadily and consistently to reach the second highest margin percentage of the group, behind Edinburgh. There are significant variations regarding the composition of Gatwick's EBITDA over time and there is no single consistent factor that drives it. However, this increase is underpinned by sustained passenger growth, and costs growing at a slower rate than passenger numbers.
- Manchester has the second lowest EBITDA margin in the comparison group at the end of the period. EBITDA margin rose in 2016 and subsequently fell in 2018 for the following reasons:
 - The most noteworthy change in the data is shown at Manchester where revenues declined in absolute and per passenger terms between 2015 and 2016. This is due to a change in classification between income and expenditures as presented in the financial accounts. The accounts note that this was made (and subsequently restated for 2016), to reflect more appropriately certain rebates and discounts as a reduction of revenue, rather than a cost of sale (discounts were previously added to revenue and shown as an operating cost). As a result, Manchester's revenue appears to drop and remain lower after this re-classification. This does impact all revenue-based metrics but does not affect corresponding return metrics as there is no net impact. As will be seen in later sections this is also reflected in the significant drop in aviation revenues during the same period. This means that any revenue-based measure used in this report before 2016 is not comparable with other airports and this accounting feature will also impact on MAG.

This factor only affects the revenue side of the EBITDA margin calculation and only prior to 2016 - having the effect of reducing Manchester's EBITDA margin in these years.

- The decline in EBITDA margin in 2018 is attributed to increased operating costs, which jumped by over 20% in that year while revenues continued a lower rate of increase more in line with long term trends. Although this rate of cost increase did not continue into 2019, revenues also started to dip by that year, resulting in an EBITDA margin just below 40% by that year.
- Bristol and Stansted have declining EBITDA margins in the final 1 or 2 years of the review period. These declines are relatively modest and despite relatively strong revenue growth, EBITDA did not increase in-line with revenue. Stansted may have begun to be impacted by Covid (see final comment in this section).
- Luton Airport's EBITDA margin is the lowest in the benchmark group from 2013 onwards. The primary reason for this is that it includes costs associated with the concession agreement which is a unique structure among this benchmark group. The growth of EBITDA however has been strong, driven by strong underlying passenger growth – Luton exhibited the strongest passenger growth in the comparison group for the period 2011-2019 at 8.2% CAGR. There was a dip in our measure of EBITDA margin in 2017 which the accounts flag as being driven by development of the terminal building and its impact on trading.
- Edinburgh's EBITDA margin significantly increases from 45% to 64%. Strong growth in later years is because of expanded flight services in the long-haul market and greater frequency of European short-haul services across an increased range of destinations. Additionally, Edinburgh generated strong growth in commercial revenue per passenger whilst simultaneously reducing Opex per passenger (see Section 3.4). The increase in passengers over this time likely increased commercial revenue and reduced unit operating costs and contributed significantly to the increase in Edinburgh's EBITDA margin.
- It is highly likely that in 2019 Birmingham, MAG, Manchester and Stansted were beginning to be affected by the start of Covid which may be a key factor in their declines in EBITDA for 2019. This is because their respective year ends are to the end of March 2020. However, for Manchester, MAG and Birmingham their respective EBITDA margins had also been declining prior to 2019.

3.2.3 Adjusted Operating Profit Margin (OPM)

This metric uses an adjusted reported operating profit figure that excludes the impact of exceptional items, and before any revaluations and financing costs and tax. It includes (i.e., is net of) depreciation and amortisation costs.

This adjusted metric will reflect a clearer view of underlying (or normalised) operating profitability.

Definition Applied to Adjusted Operating Profit and Margin

This measure is useful for assessing profitability after accounting for the costs of mainly depreciation and amortisation. We have applied a definition that excludes exceptional items, that gives a normalised view of operating profit to achieve more comparability amongst peers. We define it as:

$$\text{Adjusted Operating Profit Margin (OPM) \%} = (\text{Operating Profit less exceptional items}) / \text{Total Revenue}$$

Operating profit (OP) when reported in the accounts may include exceptional items that need removing when applying the definition above. These exceptional items are a matter of judgement for management and can include impairments or revaluations (depending on the accounting standards and year), restructuring costs, exceptional pension costs, and other one-off items such as the Corona Virus Job Retention Scheme Incomes.

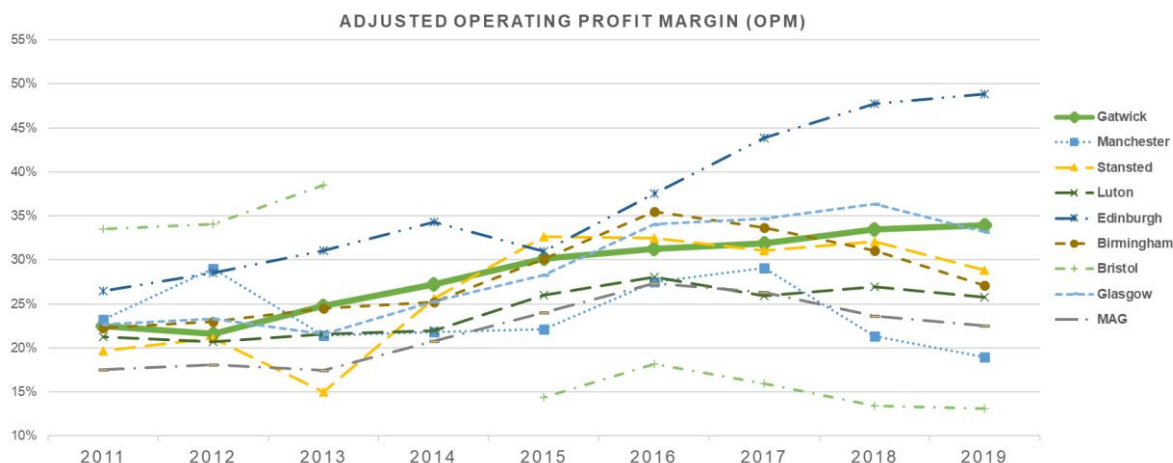
By excluding these items, we get a clearer view of the underlying, or normalised operating profit upon which to base our analysis. The impact appears more significant when considering the absolute OPM, and to a lesser degree the OPM percentage.

The treatment of exceptional items is further described in Table 6 in the Appendix.

Figure 6: Nominal Adjusted Operating Profit and Margin summary results for benchmark airports, 2011-2019^{13, 14, 15}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	116	116	147	174	203	226	244	271	290
Manchester	70	93	76	85	92	105	121	98	83
Stansted	46	51	44	70	93	97	103	115	105
Luton	24	24	26	28	38	46	47	54	58
Edinburgh	29	31	37	45	45	62	81	97	108
Birmingham	23	25	28	31	39	52	52	50	43
Bristol	21	21	24		11	16	16	15	15
Glasgow	19	20	20	24	29	38	42	46	42
MAG	66	74	117	154	187	203	215	204	201

	CAGR 2011-2019
Gatwick	12.1%
Manchester	2.1%
Stansted	10.9%
Luton	11.9%
Edinburgh	17.8%
Birmingham	8.1%
Bristol	-3.8%
Glasgow	10.8%
MAG	15.1%
<i>Wght. avg ex MAG</i>	9.98%



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	22.5%	21.6%	24.8%	27.2%	30.1%	31.2%	31.9%	33.5%	33.9%
Manchester	23.3%	29.0%	21.4%	21.8%	22.2%	27.5%	29.1%	21.3%	19.0%
Stansted	19.7%	21.1%	15.0%	25.6%	32.6%	32.5%	31.1%	32.1%	28.9%
Luton	21.2%	20.7%	21.6%	21.9%	26.0%	28.0%	25.9%	26.9%	25.8%
Edinburgh	26.5%	28.5%	31.1%	34.3%	31.0%	37.5%	43.9%	47.7%	48.8%
Birmingham	22.3%	23.0%	24.5%	25.2%	30.1%	35.5%	33.7%	31.1%	27.1%
Bristol	33.5%	34.0%	38.5%		14.3%	18.2%	15.9%	13.4%	13.1%
Glasgow	22.6%	23.3%	21.6%	25.3%	28.3%	34.0%	34.7%	36.4%	33.2%
MAG	17.6%	18.1%	17.5%	20.8%	24.0%	27.3%	26.3%	23.7%	22.5%

Key Insights and Findings

- Both absolute and margin measures of adjusted operating profit have generally trended upwards at the benchmark group of airports over the period 2011-2019, but there are some exceptions which are highlighted below.
- The Adjusted Operating Profit Margin metric shows a slightly tighter grouping than the EBITDA margin, with most values being in the range of 20% to 35%. There are two significant outliers – Edinburgh and Bristol – with the former at the upper end and the latter at the lower end of the benchmark group.
- The profile of each OP margin line in Figure 6 broadly matches that of EBITDA Margin. However, the relative positioning differs. For instance, Bristol’s OP margin is much lower relative to the wider group than its EBITDA margin and there is a larger gap between Edinburgh and Gatwick in the OP margin.
- Bristol’s OP margin drops noticeably in 2015, which is a result of a substantial amortisation charge incurred on intangible fixed assets of £11.5m after 2015. This charge significantly impacts the depreciation charge on operating profit (and net profit but not EBITDA) and appears to coincide with an increase in the value of intangibles recognised on consolidation into the SWAL Group.
- Gatwick measures slightly lower than observed for the EBITDA margin, ranking around 3rd/4th for OP as opposed to 2nd/3rd for EBITDA. Gatwick exhibits continued growth in its adjusted OP margin from 2013 onwards, increasing from 21.6% in 2012 to 33.9% in 2019. We do not see the growth drivers as being different than those presented above for EBITDA margin. But it does grow more rapidly than the EBITDA margin and it exhibits the second highest growth of airports in our comparison group.
- All airports in the peer group, except Gatwick and Edinburgh, have declining OPM in the final year of the review period, irrespective of the actual year end (Calendar or Financial year end) prior to the substantive pandemic period. There is a possibility that in 2019 Birmingham, MAG, Manchester and

¹³ Source: First table, PA Calculations, Airport annual financial statements.

¹⁴ Note to chart: Bristol data excluded for year 2014, Manchester revenue data prior to 2016 contains discounts given to airlines.

¹⁵ Source: Second table, Airport financial statements, PA Analysis.

Stansted are beginning to be affected by the start of Covid which may be a key factor in their OPM declines in 2019. This is because their respective year ends are to the end of March 2020. However, for Manchester, MAG, and Birmingham their respective operating profit margins (like EBITDA) had also been declining prior to 2019.

3.2.4 Considering the Impact of Fair Value Gains on Investment Properties and its Impact on Profitability Measures

Some airports will have investment properties as part of their underlying asset base. Seven peers in our airport cohort have investment property clearly disclosed in their accounts.

The ability to identify these gains depends on how they are accounted for since there are some technical adjustments for how gains might be accounted for and disclosed.

These investment properties may have gains and losses, but they are not typically considered part of operating profit and are instead recognised as an un-realised gain in another part of the financial accounts under IFRS. Investment properties are typically measured using a 'fair value' methodology with gains and losses reflecting market conditions and asset valuations at that time. They are not necessarily a reflection of the underlying trading activities of the airport, although the case is arguable when, for example investment properties include car parks which are integral to the airports' operations.

Nonetheless, investment property gains (and losses) are un-realised, non-cash and not typically considered part of operating profit.

An exception to this appears to be Glasgow which discloses and includes gains (or losses) on investment property as part of its operating profit, therefore for comparability, has been adjusted out of operating profit for this report.

Technical Accounting note

Fair value gains and losses are usually recognised after operating profit as an input into net profit, given that the airports surveyed in the sample account for investment property under the IAS 40 Fair Value Model. This approach assigns both gains and losses in investment property fair value to net profit on the income statement (i.e., typically after operating profit).

Prior to the transition to IFRS from 2015 onwards, airports such as Birmingham followed UK GAAP SSAP 19¹⁶ when accounting for investment properties. Under this approach, movements in the fair value of investment properties are not normally assigned to the Profit or Loss account, but to a revaluation reserve (in equity) account. This process is similar to a non-investment property revaluation model under IFRS.

Therefore, regardless of time-period and accounting framework, investment property fair value changes are not expected to impact the operating profit, and we have ensured that the identifiable exceptions have been adjusted from our airport peer group where appropriate for comparability.

There are further considerations and technical points in this area, that are beyond the scope and needs of this report. The aim of this report is to achieve and ensure the most comparability for which some adjustments were required in limited instances, and not to conclude on the accounting treatments or disclosures.

For completeness and comparison, the below analysis shows the impact if these gains and losses were included in Adjusted Operating Profit Margin (OPM).

¹⁶ Source: The Institute of Chartered Accountants, Statement of Standard Accounting Practice No. 19, Nov 1981, pp.5-6.

Figure 7: Investment Property Gains and Losses applied to Adjusted Operating Profit and Margin in Figure 6, 2011-2019¹⁷

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	-	-	-	17.0	28.7	70.4	93.4	126.6	15.8
Manchester	0.1	-	-	8.1	0.2	3.4	7.3	2.1	0.7
Stansted	-	-	-	18.2	5.8	0.2	0.2	7.3	0.5
Edinburgh	-	-	-	-	47.8	8.5	33.3	12.6	18.1
Birmingham	-	-	-	-	7.9	0.8	2.9	0.1	1.5
Glasgow	-	-	-	3.6	9.7	13.9	47.8	8.6	4.8
MAG	-	1.1	3.6	19.9	30.0	16.5	14.5	16.9	2.2

The table above shows the values of the investment property gains and losses that have been applied in calculating the adjusted operating profit chart below for the seven airports where investment property gains and losses are identified and explicitly included in their respective financial statements.

Gatwick, for example, had the highest value of identifiable investment property gains between 2011 and 2019, inclusion of which would give the impression of significantly larger profits. However, these profits were un-realised gains.

This is also true in times of revaluation losses, for example, during Covid (a period outside this report section). Gatwick's recognised investment property losses were £160m in 2020, whilst the underlying business during Covid was uncertain. However, those losses have since begun to be recognised again as gains after 2020, reversing the previous loss.

It should also be noted that changes in the size of investment property revaluation gains and losses are often immaterial from one period to another. This immateriality is especially relevant in the case of Manchester, for example, where gains and losses remain generally small and consistent (with the exception of 2014 to 2015 where there is a sharp reversal in the prior year's gains due to a revaluation of Manchester's residential property portfolio). The same is true of Birmingham, where gains and losses are consistent in terms of both their small quantity and low degree of materiality.

Despite the often largely immaterial impact of year-to-year fair value changes in the valuation of investment property, Manchester and Birmingham have been included in this section to maximise comparability across the airport sample.

The following chart is shown for illustrative purposes, and includes gains and losses recognised on investment properties in our view of adjusted operating profit margin between 2011 and 2019 for comparison to figure 6, which illustrates adjusted operating profit (net of investment property gains and losses) between 2011 and 2019.

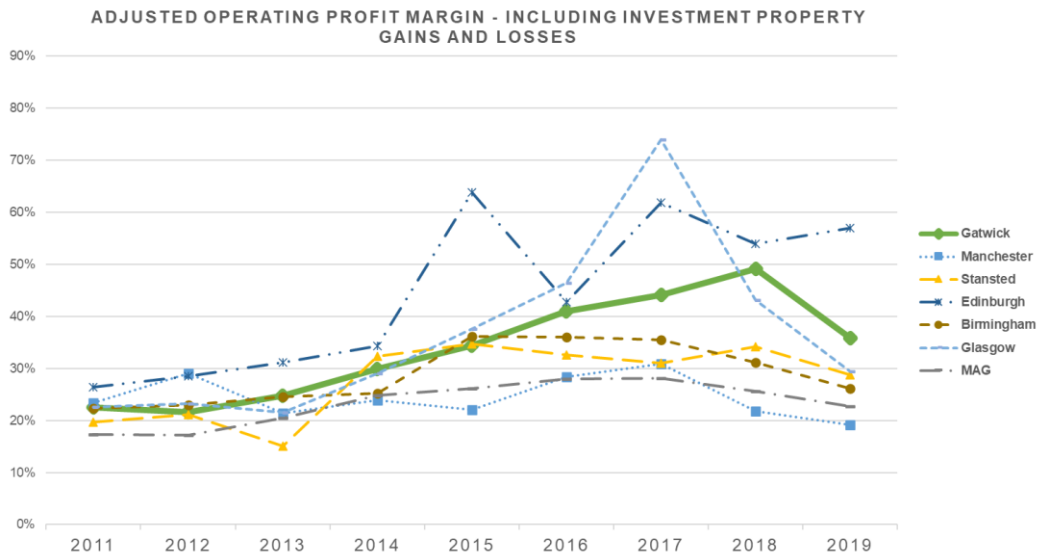
Figure 8: Adjusted Operating Profit and Margin including Revaluation Gains and Losses, 2011-2019¹⁸

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	£116.2	£116.4	£147.0	£190.8	£231.4	£296.7	£337.0	£398.0	£305.4
Manchester	£70.5	£93.4	£75.9	£93.1	£91.8	£108.8	£127.8	£100.0	£83.7
Stansted	£46.1	£50.9	£44.3	£88.5	£98.9	£97.3	£103.2	£122.4	£105.0
Edinburgh	£29.1	£31.3	£36.6	£44.9	£92.9	£70.1	£114.4	£109.9	£126.0
Birmingham	£23.2	£24.7	£27.9	£30.6	£47.2	£52.5	£55.3	£50.1	£41.8
Glasgow	£18.6	£20.2	£19.6	£27.7	£39.0	£52.2	£90.1	£54.7	£37.4
MAG	£64.4	£70.8	£137.3	£183.6	£203.4	£207.7	£229.9	£220.8	£203.5

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	22%	22%	25%	30%	34%	41%	44%	49%	36%
Manchester	23%	29%	21%	24%	22%	28%	31%	22%	19%
Stansted	20%	21%	15%	32%	35%	33%	31%	34%	29%
Edinburgh	26%	28%	31%	34%	64%	43%	62%	54%	57%
Birmingham	22%	23%	25%	25%	36%	36%	36%	31%	26%
Glasgow	23%	23%	22%	29%	38%	46%	74%	43%	29%
MAG	17%	17%	20%	25%	26%	28%	28%	26%	23%

¹⁷ Source: Airport financial statements, PA Analysis.

¹⁸ Source: Airport financial statements, PA Analysis.



The chart shows that by including gains and losses in investment properties, the resulting adjusted operating profit is more volatile and does little to aid comparability of underlying airport operations.

In addition, two of our peer group do not have these gains and losses, and therefore would make a comparison of adjusted operating profit across all eight airports in our peer group less informative with large un-realised gains impacting the view of underlying profitability in some but not all our peer group.

For the purposes of this report, revaluation gains and losses on investment properties are not considered a normalised position of the underlying airport operating profitability (since gains and losses are not typically recognised as part of operating profit). They are, however, recognised in the net profitability analysis given the aforementioned use of the fair value model by the airports that list investment property clearly in their accounts, which makes investment property revaluations part of their net profit figure.

These values have therefore not been included in the 'per passenger' metrics or elsewhere in the report, since it would introduce un-related volatility to the resulting calculations and interpretations.

3.2.5 Net Profit Margin

This metric uses the net profit (or the 'bottom-line' profit) figure which will include all exceptional items, revaluations, and financing costs (e.g., interest) and taxation.

The net profit will reflect a view of shareholder returns, after any in-year technical adjustments or exceptions and could be considered an 'un-normalised' view of profitability after financing costs and arrangements, and after taxation. The metric will also include any financing costs associated within any corporate financing and company structures, including related party financing arrangements.

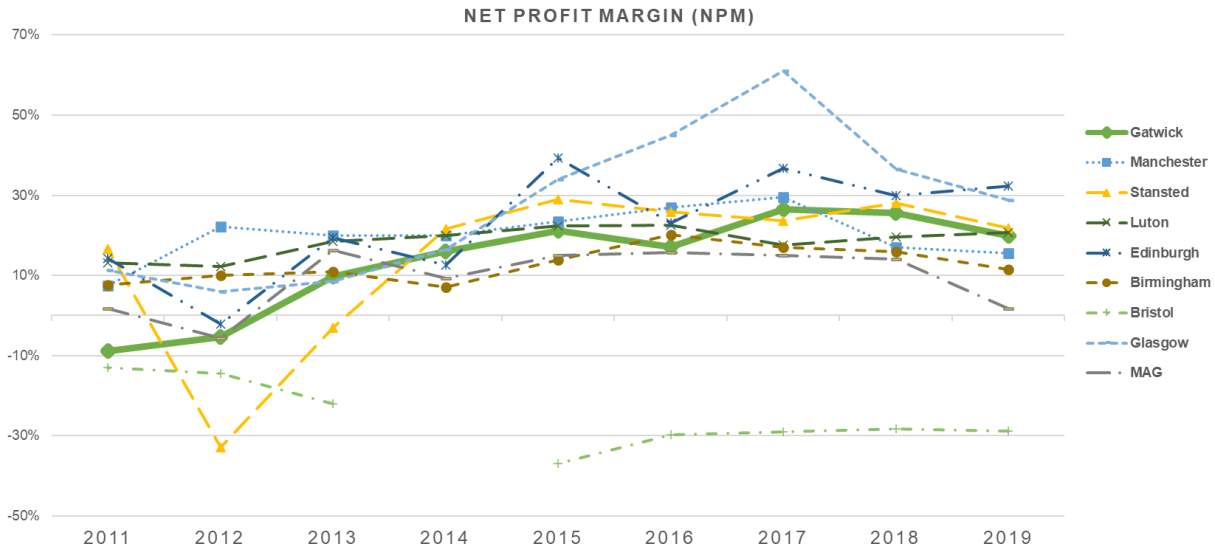
Definition Applied to Net Profit Margin

This measure is useful in that it can highlight the scale of exceptional items and highlights the complexity of airport operations.

$$NPM (\%) = \text{Net Profit} / \text{Total Revenue}$$

Figure 9: Nominal Net Profit and Margin summary results for benchmark airports, 2011-2019^{19,20}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	-46	-29	58	102	142	125	202	208	170
Manchester	22	71	71	78	97	103	122	78	68
Stansted	39	-79	-9	59	83	77	79	101	80
Luton	15	14	23	26	33	37	32	39	47
Edinburgh	16	-2	23	17	57	38	68	61	71
Birmingham	8	11	12	9	18	29	26	26	18
Bristol	-8	-9	-14		-29	-27	-29	-32	-34
Glasgow	9	5	8	16	35	51	74	46	37
MAG	6	-23	109	69	117	117	123	121	15



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	-8.8%	-5.4%	9.7%	16.0%	21.1%	17.2%	26.5%	25.7%	20.0%
Manchester	7.4%	22.1%	20.0%	20.0%	23.4%	26.9%	29.6%	17.1%	15.6%
Stansted	16.6%	-32.8%	-3.1%	21.7%	29.0%	25.9%	23.7%	28.1%	21.9%
Luton	13.1%	12.2%	18.5%	19.9%	22.3%	22.6%	17.6%	19.5%	20.7%
Edinburgh	14.2%	-2.2%	19.4%	12.6%	39.2%	23.0%	36.8%	30.0%	32.2%
Birmingham	7.7%	10.1%	11.0%	7.1%	13.9%	20.2%	17.0%	16.0%	11.6%
Bristol	-13.0%	-14.4%	-22.1%		-37.0%	-29.8%	-29.0%	-28.3%	-28.8%
Glasgow	11.2%	6.0%	8.5%	16.4%	33.9%	45.1%	61.1%	36.6%	28.8%
MAG	1.7%	-5.6%	16.2%	9.3%	15.0%	15.8%	15.0%	14.1%	1.7%

Key Insights and Findings

- Net Profit Margin is more volatile than the other margin measures we have reviewed and ranges from -37% (-£29m) for Bristol in 2015 to 61.1% for Glasgow airport in 2017/18.
- Despite this wide range, most results become more tightly bunched between 15% and 30% in the later years of the study when excluding consistent outliers such as Bristol from the range. Gatwick sits around 3rd/4th in the rankings. There is a clear uptrend in the overall measure which at a very high-level mirrors the previous margin measures we have reported. Overall, net profit is lower than OPM and this reflects the additional costs such as taxation and refinancing which are included in this measure.
- A contributing factor is that this measure includes exceptional items as defined in the Net Profit Margin measure and as disclosed in the accounts. As discussed with CAA this measure was not used for any Returns measures but is consistent with the accounting view of net profit.
- Gatwick in 2011 and 2012 does record positive net profit before interest charges in its accounts which take Gatwick to a loss. The interest charges in these years appear to be related to a mixture of items, including interest on loans from other group entities, interest on bank borrowings and net interest payable on derivative financial instruments (e.g., index-linked derivatives and swap arrangements).

¹⁹ Note to chart: Bristol data excluded for year 2014, Manchester revenue data prior to 2016 contains discounts given to airlines.

²⁰ Source: Airport financial statements, PA Analysis.

- A significant outlier can be observed for Glasgow in 2017/18 which recorded a significant increase in the revaluation of its property assets; c.£47m as opposed to c.£14m in the prior accounting period.
- Bristol makes a net loss. This is partly because Bristol Airport No.3 Ltd.'s intra-group financing arrangements result in a financing charge of c. £45m per year from 2015. These additional costs can be seen within finance costs from 2015, the first full year of consolidation of the SWAL Group consolidation and have the effect of lowering Bristol's NPM further. The Adjusted Operating Profit Margin measure is unaffected by this charge and Bristol has a positive OPM. It is primarily because of its' financing arrangements that Bristol airport has a negative net profit in all years between 2011 and 2019.
- All Airports in the peer group, except Luton and Edinburgh, have declining net profit margin in the final year of the review period, irrespective of the actual year end (Calendar or Financial year end) prior to the substantive pandemic period. Once again, due to their year ends, Birmingham, MAG, Manchester and Stansted are potentially beginning to be affected by the start of Covid which may be a factor in their Net Profit Margin declines in 2019. This is because their respective year ends are to the end of March 2020. However, for Manchester, MAG, and Birmingham their respective net profit margins (like OPM and EBITDA) had also been declining prior to 2019.

3.3 Returns Findings

3.3.1 Introduction

Returns measures quantify a company's overall efficiency in generating profits from its asset base for shareholders.

They are considered useful for example because:

- airports are capital intensive businesses; and
- investors need to make adequate returns on their investment.

We have used three different returns measures in this analysis:

1. Return on Capital Employed (ROCE)
2. Return on Fixed Assets (ROFA)
3. Return on Tangible Fixed Assets (ROFA-I)

Such measures are widely used in all sectors and are straightforward to calculate without needing to make extensive adjustments to airports' financial statements.

'Returns' as defined in this measure is based on our measure of Adjusted Operating Profit Margin (OPM).

In general terms, there is a limitation that the approach to valuing Fixed Assets (including within capital employed), will be slightly different between different airport accounts. For example, the approach to depreciation, the rate at which assets are recognised as an expense, will vary between organisation and is a matter for management to determine under the permitted accounting frameworks and rules. It is therefore highly likely that there will be differences in some asset classes' useful economic lives. However, the comparability and simplicity of this measure outweighs the potential for differences in measurement and therefore is a valid and clear comparator metric.

The exception and exclusion to this part of the analysis is Luton Airports, which has an arrangement such that most of its asset base is held in an un-related entity owned by Luton Borough Council. This entity, London Luton Airport Limited (LLAL), grants a concession with an annual charge attached to the owner-operator of the airport itself. Currently, this entity is called London Luton Airport Operations Limited (LLAOL). In this case, we have excluded Luton from the analysis since its' asset base is far lower than we would expect and held in another entity separately owned and accounted for by un-related owners (despite the similar naming). Including Luton would show as an outlier with a clear reason and may make comparability less clear.

A further point to note when interpreting these Return measures is the impact of low asset values on the overall return. Given that 'assets' (whether current or fixed) appear in the denominator of the Return ratios used in this analysis, they have the potential to influence Return measures. This would increase returns measures when the assets values are low, and vice versa; reduce returns measures when the assets values are high. This factor should be noted when considering the generally lower returns of MAG (which

has the largest fixed asset value) and other airports in the sample that have smaller asset bases (in absolute value terms). Specifically for MAG, the assets value are higher (since they are a consolidated set of accounts) which includes both Manchester and Stansted airports as part of MAG. The asset values in the individual airport accounts for Manchester and Stansted appear low in comparison to those shown in the consolidated accounts for MAG, and this is one reason why the returns for Manchester and Stansted appear higher than those for MAG.

Covid started impacting airports in the UK in February 2020; those airports with year ends that finish in March, will have a 2 to 3-month potential impact of the start of this period and are thought to be a contributory factor to the operating profitability declines, which is used as our 'Return' in the following metrics. The comparator peers with year ends in March are Stansted, Birmingham, Manchester, and MAG. However, as previously noted, for these peers except Stansted, declines in EBITDA, OPM and NPM had begun in years prior and therefore the exact reason may not be fully attributable to Covid. Overall, this was not felt to impact of the analysis and other findings for Returns metrics.

3.3.2 Return on Capital Employed (ROCE)

ROCE specifically focuses on the efficient use of assets and is appropriate for capital-intensive industries. This measure uses total capital employed, which is generally regarded as total assets less current liabilities. This measure therefore includes the fixed assets, net current assets (or working capital) as part of total capital employed.

It provides a view of the total net resources used to generate all income (or loss) generating activities and expresses this as a percentage.

ROCE can be affected by changes in working capital, such as significant liabilities becoming due within one year and therefore 'current liabilities', and this appears to be one key reason for increased ROCEs for Manchester in 2017 and Bristol in 2019.

Definition Applied to Adjusted Operating Profit Margin

Returns in this context have been defined as the Adjusted Operating Profit, and excludes exceptional items, revaluations, and financing costs. Capital employed represents all capital that is part of the business whether that is equity or shareholders' funds plus the non-current liabilities.

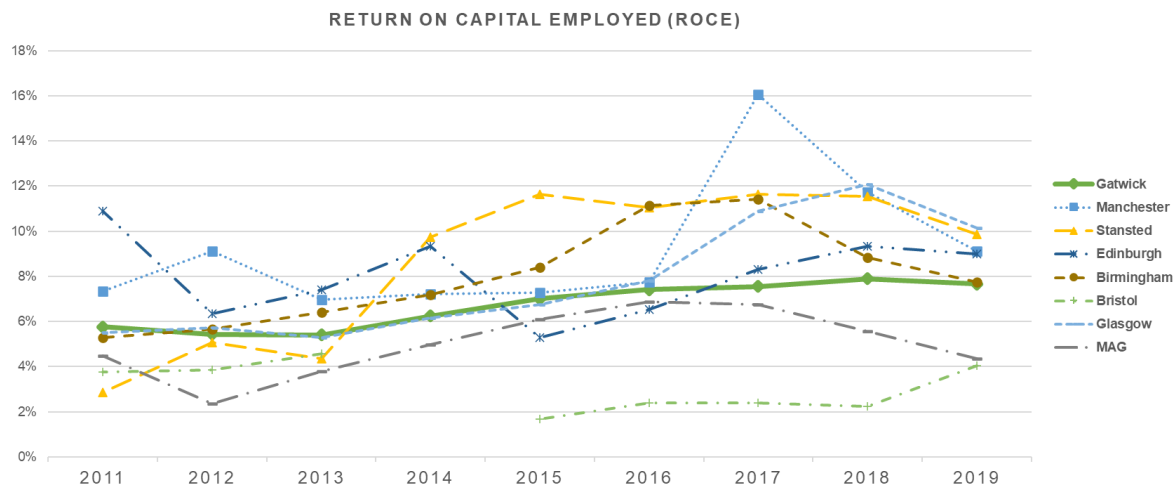
$$ROCE = \text{Adjusted Operating Profit} / (\text{Total Assets} - \text{Current Liabilities})$$

Figure 10: Return on Capital Employed (ROCE) summary results for benchmark airports, 2011-2019^{21,22}

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	5.8%	5.4%	5.4%	6.2%	7.0%	7.4%	7.5%	7.9%	7.7%
Manchester	7.3%	9.1%	7.0%	7.2%	7.3%	7.7%	16.1%	11.7%	9.1%
Stansted	2.8%	5.1%	4.4%	9.7%	11.6%	11.0%	11.6%	11.6%	9.9%
Edinburgh	10.9%	6.4%	7.4%	9.3%	5.3%	6.5%	8.3%	9.3%	9.0%
Birmingham	5.3%	5.7%	6.4%	7.2%	8.4%	11.1%	11.4%	8.8%	7.7%
Bristol	3.8%	3.9%	4.6%		1.7%	2.4%	2.4%	2.2%	4.0%
Glasgow	5.5%	5.7%	5.3%	6.1%	6.8%	7.8%	10.9%	12.1%	10.1%
MAG	4.5%	2.4%	3.8%	5.0%	6.1%	6.9%	6.8%	5.6%	4.4%

²¹ Source: Table, Airport financial statements, PA Analysis

²² Note to chart: Bristol data excluded for year 2014, Manchester revenue data prior to 2016 contains discounts given to airlines.



Key Insights and Findings

- Return on Capital Employed (ROCE) for the airports within the sample group falls between 1.7% and 16.1% across the analysis period. This metric and the ROFA metric are more tightly grouped than the margin metrics reported in the previous section.
- It is worth highlighting that Gatwick and MAG have broadly similar sized asset bases (this was a primary reason for the inclusion of the MAG in the benchmark group) and MAG is the only benchmark comparator that comes close to Gatwick in terms of asset base. Between the two, Gatwick demonstrates a higher ROCE in all years. However, Manchester and Stansted both have higher ROCE than MAG and Gatwick from 2014 onwards which is partly a reflection of the low book value of the assets in their individual airport's accounts.
- Manchester's ROCE in 2017/18 doubles relative to the prior year. This was driven by liabilities of c.£700m becoming due within one year or 'current' (likely as a result of the financing arrangements intra-group) which correspondingly decrease the value of capital employed and drive-up ROCE.
- Gatwick and Edinburgh had higher EBITDA Margin and OPM, but their ROCE is lower than the highest peers. Both airports have a higher recognised fixed asset base, relative to their ability to generate proportionate returns. Additionally, these two airports have the first and second smallest drop off in ROCE in 2019, although their CY reporting cycles are likely a contributing factor here because their figures do not include the January to March 2020 pandemic disruption that is reflected in the accounts of airports that report on a FY basis.
- All airports except Bristol experienced a drop off in ROCE in 2019 of between 0.3% (Edinburgh) and 2.6% (Manchester). Due to their year ends, Birmingham, MAG, Manchester and Stansted are likely beginning to be affected by the start of Covid which may be a key factor in their operating profit margin (our chosen metric for 'Return') which declines in 2019, and therefore impacts the ROCE.
- In 2019 Bristol's ROCE increased to 4%, up by 1.8 ppts, which was primarily due to a change in the value of capital employed and specifically an increase in current liabilities, which decreased the capital employed. This was driven by liabilities of £300m becoming due within one year or 'current' (likely as a result of the financing arrangements intra-group). We note also that the liabilities that became due within one year, appear to have been re-financed sometime after the accounting date, since the non-current liabilities subsequently increase from 2020 onwards by a similar amount. Bristol airport's returns are the lowest of all the selected peers. One key driver is the increased charge to depreciation and amortisation of intangible assets of £11.5m after 2015.
- Between 2011 and 2018, Stansted's ROCE increased from 2.6% to c.11% respectively. Much of the increase occurred between 2011 and 2015, driven in part by strong traffic growth and lower levels of operating expenditure per passenger. Additionally, note that the lower return in 2013 may be the result of the 15 month reporting period Stansted followed in 2013/14, from January 2013 to March 2014.

3.3.3 Return on Fixed Assets (ROFA)

ROFA provides a view on how efficiently a company uses its' fixed asset base to generate profits. Fixed assets refer to total fixed assets as per the balance sheet (including intangibles). The difference between this metric and ROCE is the exclusion of working capital (i.e., current assets and current liabilities).

It should be noted also that the 'Return' as defined will have accounted for depreciation charges on the fixed asset base, and therefore provide a true view of return on all fixed assets, after effective asset replacement costs.

Definition Applied to Return on Fixed Assets

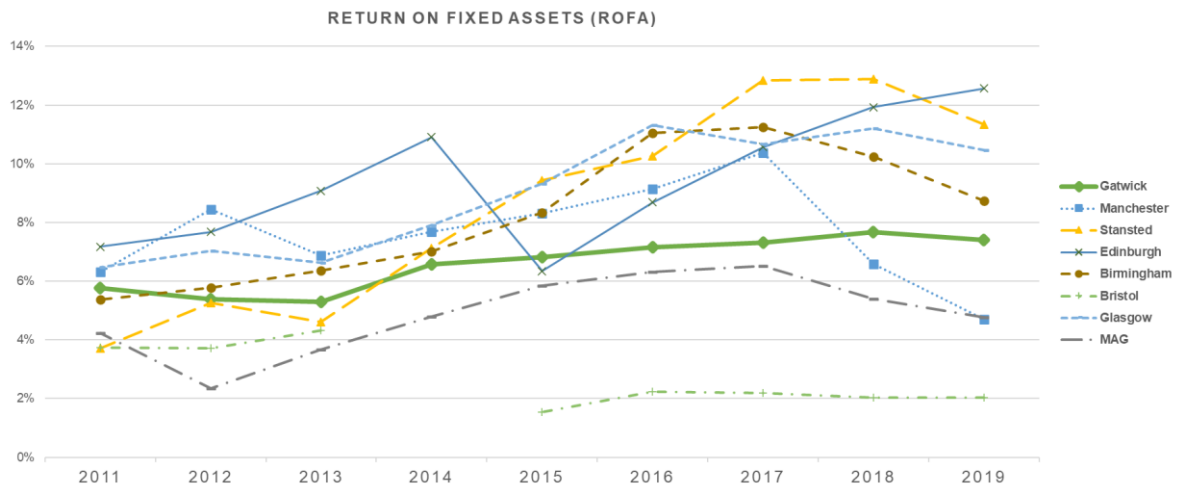
Returns in this context have been defined as the adjusted operating profit, and excludes exceptional items, revaluations, financing costs and tax.

Fixed Assets are both the tangible and intangible assets recognised in the balance sheet.

$$ROFA = \text{Adjusted Operating Profit} / \text{Total Fixed Assets}$$

Figure 11: Return on Fixed Assets (ROFA) summary results for benchmark airports, 2011-2019²³

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	5.8%	5.4%	5.3%	6.6%	6.8%	7.2%	7.3%	7.7%	7.4%
Manchester	6.3%	8.4%	6.9%	7.7%	8.3%	9.1%	10.4%	6.6%	4.7%
Stansted	3.7%	5.3%	4.6%	7.1%	9.4%	10.3%	12.9%	12.9%	11.3%
Edinburgh	7.2%	7.7%	9.1%	10.9%	6.3%	8.7%	10.6%	11.9%	12.6%
Birmingham	5.4%	5.8%	6.4%	7.0%	8.3%	11.0%	11.2%	10.2%	8.7%
Bristol	3.7%	3.7%	4.3%		1.5%	2.2%	2.2%	2.0%	2.0%
Glasgow	6.5%	7.0%	6.6%	7.9%	9.3%	11.3%	10.7%	11.2%	10.5%
MAG	4.2%	2.3%	3.7%	4.8%	5.8%	6.3%	6.5%	5.4%	4.8%



Key Insights and Findings

- ROFA for the airports within the sample group generally falls between 4% and 13% by the end of the analysis period in 2019. The exception to this is Bristol, for which we calculate a range between 1.4% and 4.3%.
- Gatwick's ROFA steadily increases over the analysis period and is at 7.4% by 2019, which was lower than four airports in the sample (Edinburgh, Stansted, Glasgow, and Birmingham) and higher than the other two airports (Manchester and Bristol).
- Most airports end the analysis period (2019) with a higher ROFA than at the beginning (2011), except for Manchester and Bristol, which are the only two airports with a lower ROFA in 2019 than Gatwick. Bristol was driven partly by increased depreciation and amortisation costs (albeit a far more significant element impacts only the Net Profit Margin and is related Financing costs). All airports were able to generate some relative operating cost efficiencies per passenger over the period as a whole.

²³ Source: Table, Airport financial statements, PA Analysis.

- Manchester's ROFA increased from 6.3% in 2011 to 10.4% in 2017, a period during which its asset base was maintained at a similar level of just above £1bn. During 2017, Manchester then started its Transformation Programme (enlarging T2 and upgrading facilities), investing £1bn over three years. However, during 2018 and 2019 its operating profits dropped significantly (c.30%) while in line with the asset base, hence the ROFA dropped off to 4.7% in 2019.
- Throughout the analysis period Bristol's ROFA was towards the bottom of the cohort., and between 2015 and 2019 it plateaued at around 2%. This in part to higher levels of depreciation following a revaluation when Bristol Airports was brought in full to the SWAL group, the intangibles that could be linked to this depreciation charge, are excluded in the next metric.

3.3.4 Return on Fixed Assets (ROFA) Less Intangibles

This variant metric is similar to the Return on Fixed Assets but, shown below, excluding also Intangibles. Provides a view on how efficiently a company uses its tangible fixed asset base to generate profits.

Definition Applied to Returns on Fixed Assets less Intangibles

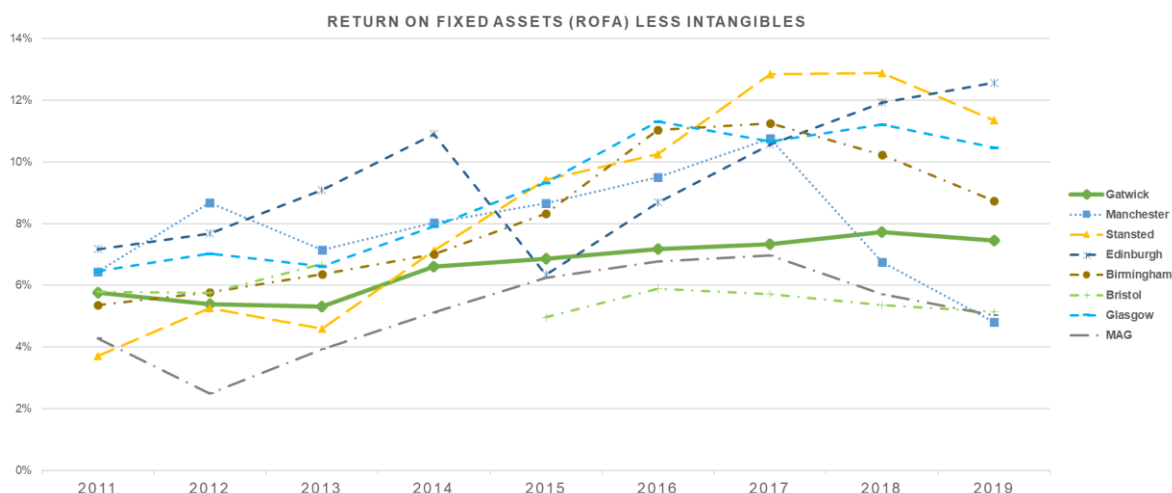
Fixed Assets are all fixed assets less intangible assets where identified in the financial statements.

Returns in this context have been defined as the Adjusted Operating Profit, and excludes exceptional items, revaluations and financing costs and tax.

$$ROFA-I = \text{Adjusted Operating Profit} / \text{Total Fixed Assets less Intangibles}$$

Figure 12: Return on Tangible Assets (ROFA-I) summary results for benchmark airports, 2011-2019²⁴

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	5.8%	5.4%	5.3%	6.6%	6.9%	7.2%	7.3%	7.7%	7.5%
Manchester	6.4%	8.7%	7.1%	8.0%	8.7%	9.5%	10.8%	6.8%	4.8%
Stansted	3.7%	5.3%	4.6%	7.1%	9.4%	10.3%	12.9%	12.9%	11.3%
Luton	24.1%	26.3%	28.1%	29.7%	45.0%	50.1%	24.7%	25.3%	24.2%
Edinburgh	7.2%	7.7%	9.1%	10.9%	6.3%	8.7%	10.6%	11.9%	12.6%
Birmingham	5.4%	5.8%	6.4%	7.0%	8.3%	11.0%	11.2%	10.2%	8.7%
Bristol	5.8%	5.8%	6.7%		5.0%	5.9%	5.7%	5.4%	5.1%
Glasgow	6.5%	7.0%	6.6%	7.9%	9.3%	11.3%	10.7%	11.2%	10.5%
MAG	4.3%	2.5%	3.9%	5.1%	6.2%	6.8%	7.0%	5.7%	5.0%



Returns are generally slightly higher when deducting intangible assets, than when considering the total fixed asset base (previous metric), because the asset base recognised is slightly lower.

²⁴ Source: Airport financial statements, PA Analysis.

However, there is little difference when compared to the Returns on Fixed Assets metric, and when combined with consideration as to how intangibles are accounted for, it would be appropriate to focus on Returns on total fixed assets as a clearer Returns metric.

Intangibles for examples, can include the recognition of an intangible asset born out of a transaction between un-related companies in the form of effectively purchased goodwill. This would reflect the value of assets over the book value recognised in the accounts for the business as a whole (i.e., an overall market value of the business; demonstrated by the occurrence of the transaction in itself). Goodwill itself is then tested annually for impairment²⁵ by management over its' useful economic life.

In principle therefore, the total Fixed Asset base recognised in the accounts are likely to reflect a clearer view of the value of the asset base used to generate trading profits.

Notably the exception is Bristol airport which appears to have a large element of its fixed asset base made up of intangibles. In both metrics, Bristol is consistently amongst the lowest of the peer group's returns measures, and specifically has the lowest ROCE / ROFA between 2014 and 2019, a reflection of stagnant operating profit generation and a growing fixed asset base throughout the period. Furthermore, Bristol's return metrics were calculated with an additional £11.5m amortisation charge excluded from operating profit from 2015 onwards in order to improve comparability; this adjustment increased Bristol's ROFA-I between 2015 to 2019, though Bristol remained the weakest performer across the cohort. Other airports did not report amortisation charges in the period that were felt to be material enough to warrant removal.

²⁵ Source: KPMG, 2022: [Subsequent accounting for goodwill: impairment 1; amortization 0!](https://www.kpmg.com/au/issuesandinsights/articlespublications/subsequent-accounting-for-goodwill-impairment-1-amortization-0/) (kpmg.com)

3.4 Contextual Metrics

The following metrics provide valuable context and are some of the main components for the margin and return results presented in the preceding section.

3.4.1 Passenger Numbers

Annual passenger numbers are used to normalise the key revenue and cost metrics in this analysis. Passenger numbers have been used as they are considered the primary driver of revenues and costs and are recognised as the most important sector specific, non-financial or contextual metric in measuring airport performance.

Where possible, the passenger numbers published in the financial statements have been used to ensure consistency with the financial information presented in the accounts. Where there were gaps, the monthly CAA statistics were used.

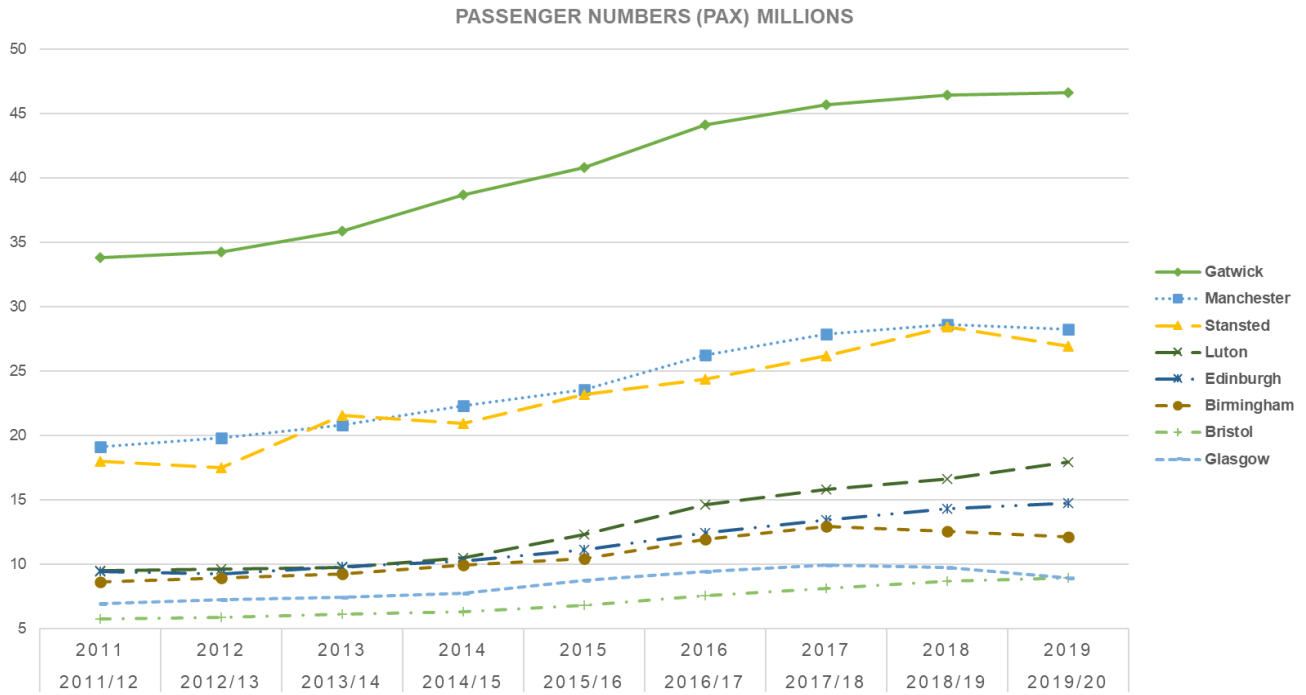
The Passenger Numbers by airport are shown in the following chart.

It should be noted that there is one 15-month passenger figure for Stansted in 2013/14, to align with the financial statement reporting periods and the key revenue and cost figures available for analysis. This is clearly visible in the chart and is therefore an exception and not a 12-month period.

For Gatwick, we have used the un-audited 12-month passenger number for 2019 as shown in the 2020 accounts (which is broadly in line with monthly CAA statistics) to ensure comparability with key revenue and cost figures.

These are used in the 'per passenger' contextual metrics to ensure alignment between numerator and denominator values.

Figure 13: Annual passenger numbers applied in our analysis, 2011-2019^{26,27}



Shown to help draw comparison to the financial format used throughout.

Passenger numbers aligning with accounting periods (Millions of Passengers)

Financial Years	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Calendar Years	2011	2012	2013	2014	2015	2016	2017	2018	2019
Birmingham	8.6	8.9	9.3	9.9	10.4	11.9	12.9	12.5	12.1
Manchester	19.1	19.8	20.8	22.3	23.5	26.2	27.9	28.6	28.2
Stansted	18.0	17.5	21.5	20.9	23.2	24.3	26.1	28.4	26.9
Gatwick	33.8	34.2	35.9	38.7	40.8	44.1	45.7	46.4	46.6
Luton	9.5	9.6	9.7	10.5	12.3	14.6	15.8	16.6	17.9
Edinburgh	9.4	9.2	9.8	10.2	11.1	12.4	13.4	14.3	14.7
Bristol	5.7	5.9	6.1	6.3	6.8	7.5	8.1	8.6	8.9
Glasgow	6.9	7.2	7.4	7.7	8.7	9.4	9.9	9.7	8.9
Total	111.0	112.3	120.4	126.5	136.8	150.5	159.8	165.2	164.2

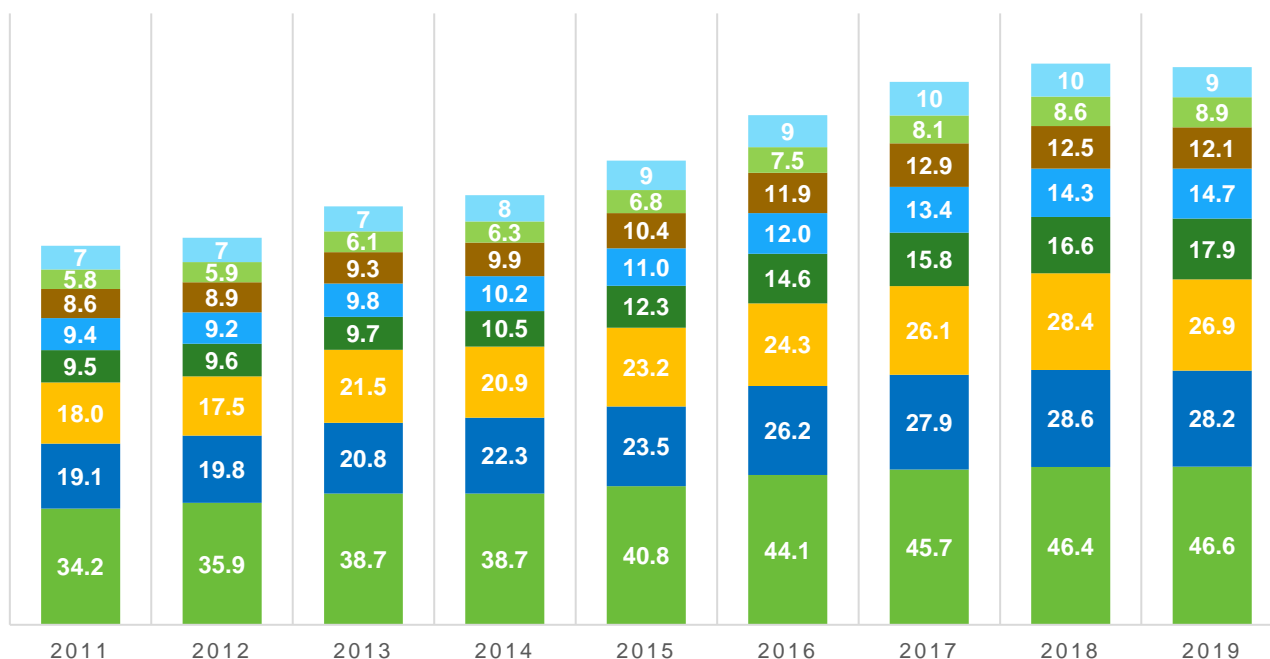
Accounts = Calendar Year
Accounts = Financial Year
Long or Short Period of Accounts

The following chart is a more representative picture of passenger growth at the benchmark airports between 2011 and 2019, with the caveat that 2019 data was likely impacted by the start of the pandemic.

²⁶ Source: Chart, Airport financial statements, CAA Statistics, PA Analysis.

²⁷ Source: Table, Airport financial statements, PA Analysis.

■ Gatwick ■ Manchester ■ Stansted ■ Luton ■ Edinburgh ■ Birmingham ■ Bristol ■ Glasgow



Annual passenger growth Year-to-Year %²⁸

	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	1.2%	4.8%	7.8%	5.5%	8.1%	3.6%	1.6%	0.3%
Manchester	3.7%	5.0%	7.4%	5.4%	11.4%	6.4%	2.6%	-1.4%
Stansted	-2.8%	23.0%	-2.8%	10.8%	5.0%	7.4%	8.6%	-5.3%
Luton	1.1%	1.0%	8.2%	17.1%	18.7%	8.2%	5.1%	7.8%
Edinburgh	-2.0%	6.6%	4.1%	8.8%	11.7%	8.1%	6.7%	2.8%
Birmingham	3.7%	3.7%	7.0%	5.5%	14.0%	8.2%	-2.7%	-3.3%
Bristol	2.9%	3.4%	3.5%	7.7%	11.3%	8.0%	6.2%	3.2%
Glasgow	4.3%	2.8%	4.1%	13.0%	8.0%	5.3%	-2.0%	-8.2%
Total	1.2%	7.2%	5.0%	8.2%	10.0%	6.2%	3.4%	-0.6%

	CAGR 2011-2019
Gatwick	4.1%
Manchester	5.0%
Stansted	5.2%
Luton	8.2%
Edinburgh	5.8%
Birmingham	4.4%
Bristol	5.7%
Glasgow	3.2%
Wght. avg ex MAG	5.0%

Key Insights and Findings

- Passenger numbers at the airports in the benchmark group grew at an average CAGR of 5% and over the period 2011 to 2019, with total annual growth rates across the entire sample being positive in all years other than 2019.
- Gatwick's growth was most significantly driven by easyJet strengthening its base at the airport; it almost doubled its scheduled seat capacity from the airport between 2011 and 2019. Long-haul services by Norwegian, Virgin Atlantic and other carriers were added but did not significantly change passenger volume trends.
- Manchester added almost ten million passengers per annum between 2011 and 2019; here the growth was driven by a balanced increase across leisure carriers such as Ryanair, easyJet, TUI and Jet2.com.
- Stansted is Ryanair's largest base in England. The low-cost carrier was the leading carrier throughout the period and drove its traffic evolution during the benchmark period, accounting for over 80% of total seat capacity between 2011 and 2019. While other carriers came and went, it was the Ryanair schedule, serving a range of short-haul European destinations, which shaped the growth of Stansted's passenger volumes.
- Luton saw one of the most rapid growth rates in passenger numbers in the benchmark group, possibly benefiting from an increasing level of saturation at other London airports and also the very rapid growth of the low-cost carrier (LCC) Wizz Air from 2014 onwards.
- Edinburgh served a broad range of airline types and markets during the benchmark period, including high share of business class routes to/from London, leisure and visiting friends and family (VFR) to/from European hubs, as well as increasing numbers of long-haul services to North America and the

²⁸ 'Total' row displays the total annual percentage change in passenger growth across the entire benchmark sample.

Middle East. This balanced airline and market profile contributed to the 50% increase in seat capacity and passenger volumes between 2011 and 2019.

- Birmingham airport predominantly consists of low-cost carrier airlines, especially Ryanair and easyJet, and until its' demise Monarch Airlines, which offered both long and short-haul services from the airport. Since Monarch's exit, Jet2.com has backfilled some of the lost capacity but as of 2019 total scheduled services had not recovered to their 2017 peak.
- Bristol is one of two airports that did not exceed 10 million passengers during the 2011 to 2019 period and its growth was almost entirely driven by the capacity additions of easyJet at the airport. Ryanair maintained a steady minority share throughout, with TUI adding services particularly from 2014 onwards.
- Glasgow grew the least, in both absolute and percentage terms, at 3.2% CAGR per year, adding just two million passengers, and declining by over a million passengers in the last year of the period. The withdrawal of Ryanair in 2018 was a key driver behind the net passenger decline in 2019, with the same airline having driven the previous growth phase also. Like Bristol, it did not exceed 10 million passengers per annum between 2011 and 2019.
- A key conclusion that can be drawn from the analysis presented above is that the financial and operational performance of these airports appear closely correlated with, and potentially dependent upon, the decisions made by key airline customers. The impacts of these decisions can be both positive and negative in nature, and it should also be noted that the overall picture remains one of healthy growth across the airports included in the sample in the period 2011 to 2019.

3.4.2 Airport Revenues

Total airport revenues comprise two main elements in this analysis: Aviation and Commercial Revenue, in line with industry standard categorisation for airports.

Aviation Revenue

This we regard as the primary revenue linked to the airport's main trading activity of handling aircraft and passengers, and thus has a direct link to air transport movements (ATMs) and passenger numbers. This will give a narrower, more focused view of the revenue generation from primary activities and excludes activities that generate other revenues (e.g., specific car parking facilities or retail agreements).

Commercial Revenue

In principle, this is all other revenue that has been generated by the airports that is not aviation charges related. This category provides a view on the incomes received over and above primary trading activity of aircraft and passenger handling. Commercial revenues will therefore reflect some structural differences between airports (e.g., bigger car parks, or retail commercial agreements).

The classification of revenue components is not consistent across airports; Table 9 in the Appendix presents how this analysis has grouped the reported activities into these two categories.

Glasgow Airport does not break down its income streams in the financial accounts reviewed after 2015 and is excluded from the component revenue sections.

Aviation Revenues

Inflation adjusted aviation revenues have been analysed and presented below. Glasgow has been excluded from this analysis as their accounts do not separately disclose a split of their Aviation or Commercial Revenue.

Figure 14: Total Aviation Revenues at benchmark airports, 2011-2019^{29,30,31}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	316	321	347	359	378	408	413	435	457	4.7%
Manchester	165	178	196	216	234	170	178	177	179	N/A
Stansted	146	150	178	160	152	139	153	158	156	0.8%
Luton	58	62	63	65	75	82	86	92	102	7.3%
Edinburgh	67	66	69	74	84	94	102	110	114	6.8%
Birmingham	55	53	54	55	57	65	67	67	63	1.8%
Bristol	29	27	27	29	33	37	41	43	44	5.2%
MAG	196	220	375	408	418	331	347	361	361	N/A
Wght. avg ex MAG										3.7%

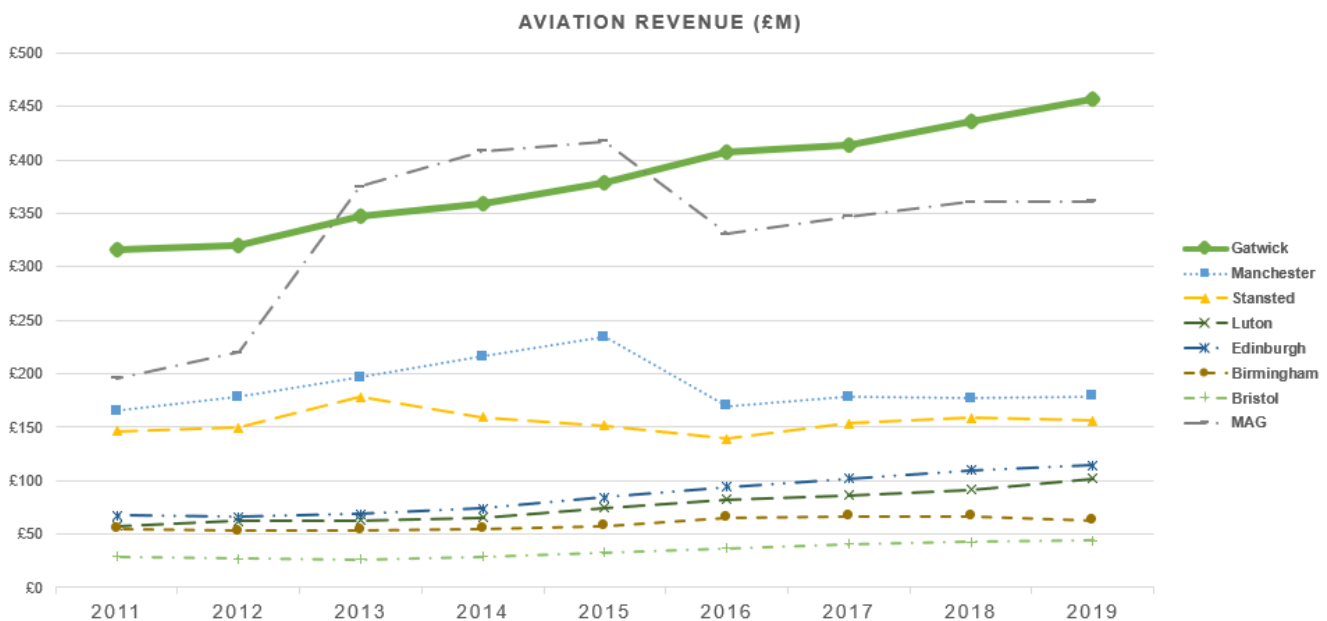


Figure 15: Aviation Revenues per passenger at 2019 prices at benchmark airports, 2011-2019^{32,33}

£	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	£9.4	£9.4	£9.7	£9.3	£9.3	£9.2	£9.0	£9.4	£9.8	0.6%
Manchester	£8.6	£9.0	£9.5	£9.7	£10.0	£6.5	£6.4	£6.2	£6.3	N/A
Stansted	£8.1	£8.5	£8.3	£7.6	£6.5	£5.7	£5.9	£5.6	£5.8	-4.1%
Luton	£6.1	£6.5	£6.5	£6.2	£6.1	£5.6	£5.5	£5.5	£5.7	-0.8%
Edinburgh	£7.2	£7.2	£7.0	£7.2	£7.6	£7.6	£7.6	£7.7	£7.8	1.0%
Birmingham	£6.4	£5.9	£5.8	£5.6	£5.5	£5.5	£5.2	£5.3	£5.2	-2.5%
Bristol	£5.1	£4.6	£4.4	£4.6	£4.8	£4.9	£5.0	£5.0	£4.9	-0.4%
MAG	£8.2	£8.5	£8.6	£8.4	£8.0	£5.9	£5.9	£5.8	£6.1	N/A

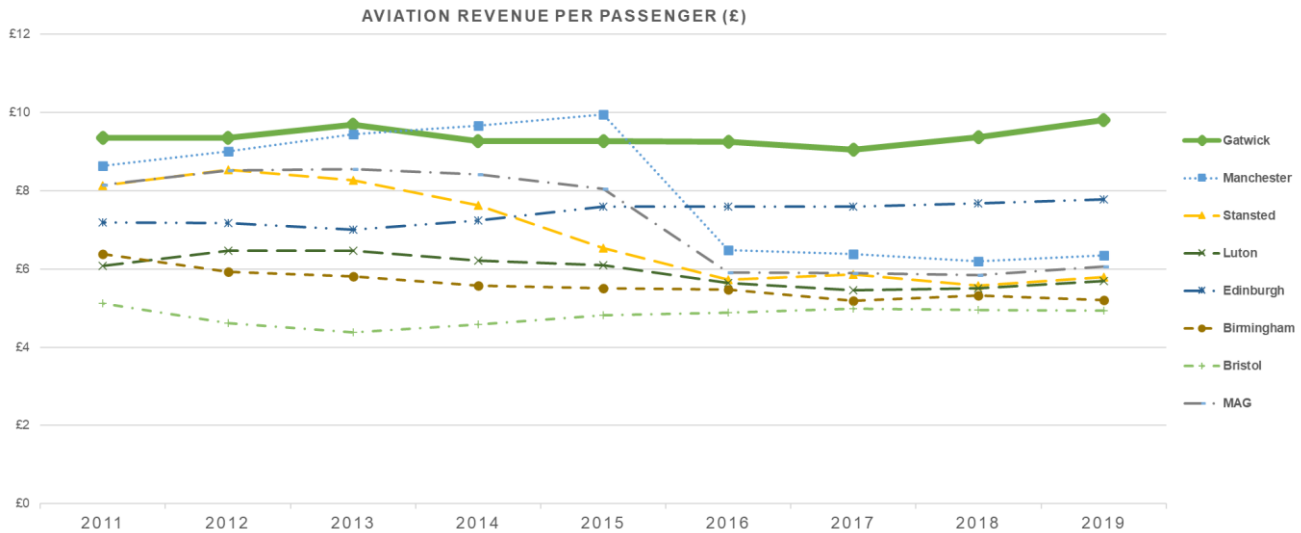
²⁹ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

³⁰ Note to chart: Manchester revenue data prior to 2016 contains discounts given to airlines.

³¹ Note to chart: Bristol data calculated by multiplying 2014 passenger numbers by aeronautical yield per passenger, both of which are listed in Bristol's 2015 annual report.

³² Source: Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

³³ Note to chart: Manchester revenue data prior to 2016 contains discounts given to airlines.



Key Insights and Findings

- When interpreting the data presented in this section, it should be noted that Manchester and MAG both lack comparability with the rest of the sample due to the large decrease in aviation revenue per passenger in 2016 being caused by the recognition of airline discounts against revenue, rather than the historical treatment of Manchester to recognise the discount as a cost against operating costs. This does not impact the return metrics or the level of EBITDA, operating or net profit (though it will affect the corresponding margin metrics).
- While total nominal aviation revenues grew in absolute terms at all the benchmark airports, once adjusted for inflation and passenger growth, the sample average reduced by 1.1% pa during this period.
- Gatwick (along with Edinburgh) does not follow this downward trend and remains the highest in terms of real aviation revenues per passenger and nears £10 of Aviation revenue per passenger for the first time in 2019.
- As these revenues reflect out-turn receipts from airlines, they are post any discounts that airports offer for new services or achieving growth targets. Typically, long-haul services attract higher airport fees, which may partially explain some of the differences in per passenger figures. Another driver will likely be the airline mix, with low-cost carriers typically negotiating lowest airport fees, often in exchange for more basic service levels in passenger and aircraft handling (e.g., remote stands versus contact stands). Table 11 in the Appendix provides an overview of the evolving airline capacity mix for reference.
- However, they will only be part of the reason, as airline-airport arrangements are complex and often confidential. It is beyond the scope of this analysis to draw inferences relating to airline-airport commercials.

Commercial Revenues

Over the analysis period total commercial revenues at the benchmark group grew at a CAGR of 5.5% when excluding MAG. This was higher than the passenger number growth of 5%³⁴. However, when presented in real terms at 2019 prices, and when normalising for passenger growth, the picture is closer to flat, with some airports achieving increases and some declining in real terms.

Similar to the Aviation Revenue section, Glasgow has been excluded from this analysis as their accounts do not separately disclose a split of their Aviation or Commercial Revenue.

³⁴ For report simplicity, nominal figures are not reproduced here.

Figure 16: Total Commercial Revenues at 2019 prices at benchmark airports, 2011-2019^{35,36,37}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	281	284	302	329	347	368	383	390	396	4.4%
Manchester	184	183	191	204	213	241	254	290	259	4.4%
Stansted	124	121	145	136	156	181	194	207	209	6.7%
Luton	72	70	71	74	83	92	102	113	125	7.2%
Edinburgh	59	57	60	67	73	81	91	98	107	7.6%
Birmingham	65	68	71	75	83	91	95	97	96	5.0%
Bristol	42	41	42	45	52	60	64	72	73	7.0%
MAG	235	242	360	388	422	464	506	516	532	10.8%
<i>Wght. avg ex MAG</i>										5.5%

COMMERCIAL REVENUE (£M)

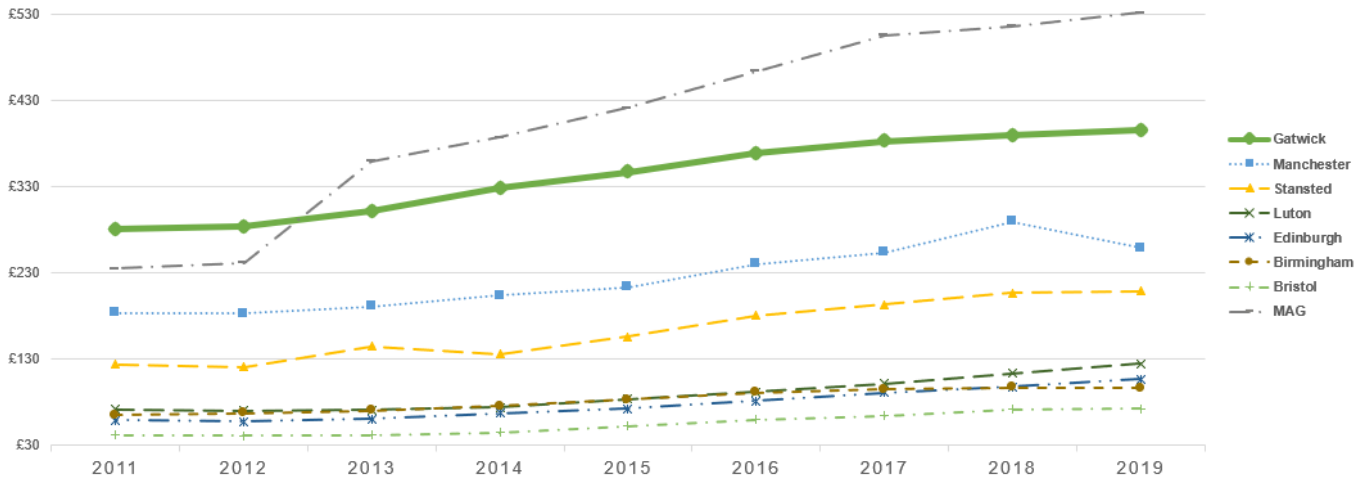
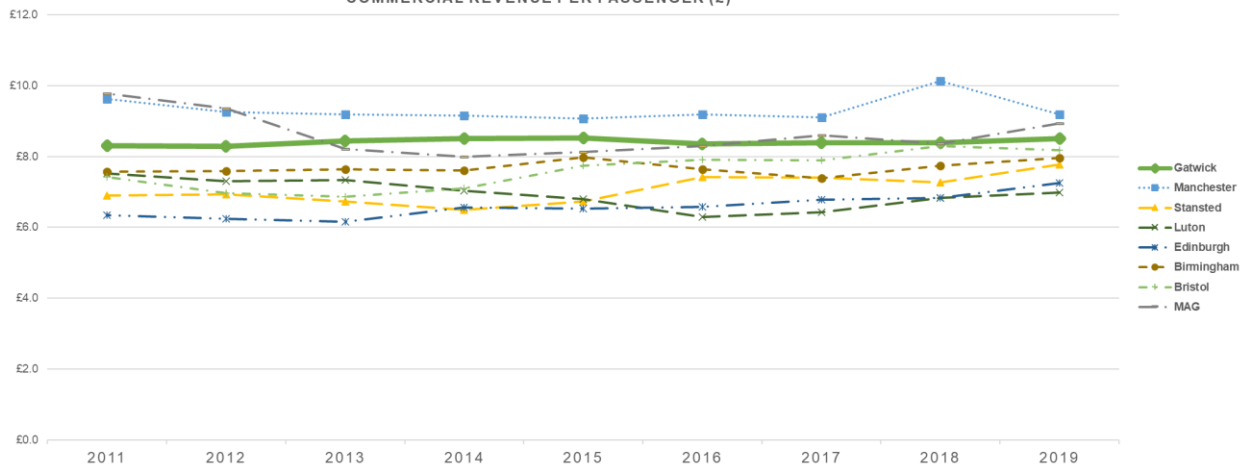


Figure 17: Commercial Revenues per passenger at 2019 prices at benchmark airports, 2011-2019^{38,39}

£	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	£8.3	£8.3	£8.4	£8.5	£8.5	£8.4	£8.4	£8.4	£8.5	0.3%
Manchester	£9.6	£9.2	£9.2	£9.1	£9.1	£9.2	£9.1	£10.1	£9.2	-0.6%
Stansted	£6.9	£6.9	£6.7	£6.5	£6.7	£7.4	£7.4	£7.3	£7.8	1.5%
Luton	£7.5	£7.3	£7.3	£7.0	£6.8	£6.3	£6.4	£6.8	£7.0	-0.9%
Edinburgh	£6.3	£6.2	£6.2	£6.6	£6.5	£6.6	£6.8	£6.8	£7.3	1.7%
Birmingham	£7.6	£7.6	£7.6	£7.6	£8.0	£7.6	£7.4	£7.7	£8.0	0.6%
Bristol	£7.4	£7.0	£6.9	£7.1	£7.7	£7.9	£7.9	£8.3	£8.2	1.2%
MAG	£9.8	£9.4	£8.2	£8.0	£8.1	£8.3	£8.6	£8.4	£8.9	-1.1%

COMMERCIAL REVENUE PER PASSENGER (£)



Key Insights and Findings

- Commercial revenues per passenger have been broadly flat in real terms. These figures demonstrate a tighter range across the benchmark group over this analysis period compared to aviation revenues

³⁵ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

³⁶ Note to chart: Manchester revenue data prior to 2016 contains discounts given to airlines.

³⁷ Note to chart: Bristol data calculated by multiplying 2014 passenger numbers by commercial yield per passenger, both of which are listed in Bristol's 2015 annual report.

³⁸ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

³⁹ Note to chart: Manchester revenue data prior to 2016 contains discounts given to airlines.

per passenger: these revenues vary by just over £2 per passenger in 2019, compared to aviation revenues which vary by as much as £6 across the highest and lowest airports in 2019.

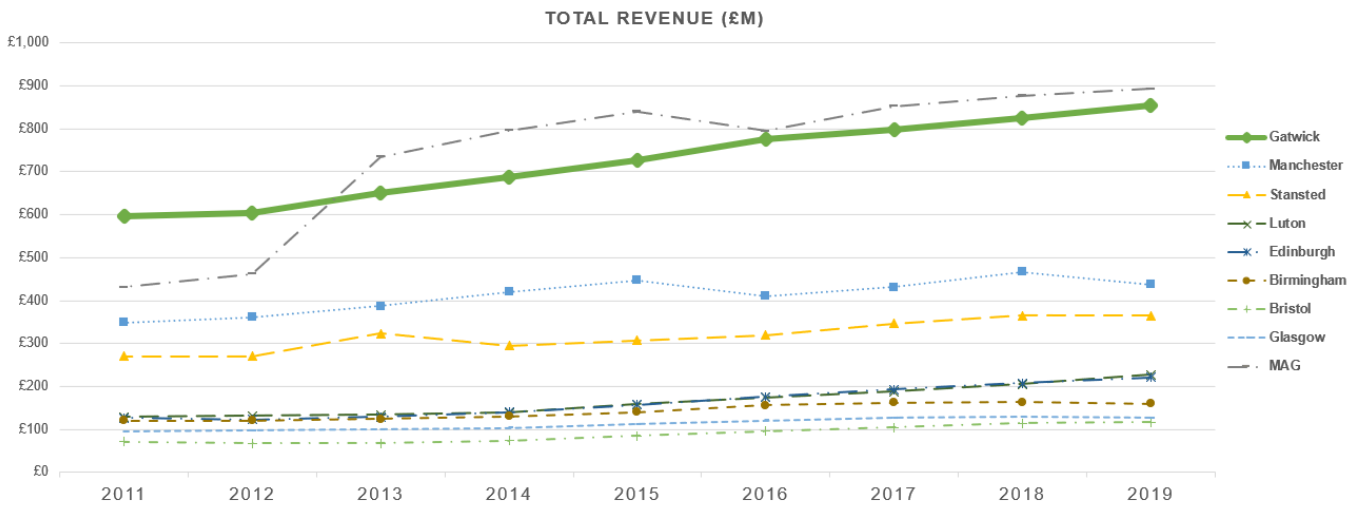
- Gatwick has maintained commercial revenues per passenger reasonably constant in real terms during the analysis period and in absolute terms is towards the upper end of the per passenger range in 2019 at £8.50.
- Manchester airport is consistently highest in the benchmark group through this period, although its commercial revenues decline slightly in real per passenger terms between 2011 and 2019. The spike in 2018 is due to a one-off increase in other income of c.£33m.

Total Revenue

Total revenues are the aggregate of the aviation and commercial revenues described above. They are provided for completeness as they form the key building blocks to total revenue and subsequent profitability and returns analysis. They are presented below, after adjusting for CPI at 2019 prices.

Figure 18: Total Airport Revenues at 2019 prices at benchmark airports, 2011-2019^{40,41,42}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	597	605	650	688	726	776	797	825	854	4.6%
Manchester	349	362	387	420	448	410	432	467	438	2.9%
Stansted	271	271	323	295	307	320	347	365	365	3.8%
Luton	129	132	134	139	158	174	188	205	227	7.3%
Edinburgh	127	123	129	141	157	176	193	208	221	7.2%
Birmingham	120	121	124	131	141	156	162	164	160	3.6%
Bristol	72	68	68	73	85	96	105	114	117	6.3%
Glasgow	95	97	99	103	112	120	127	129	127	3.8%
MAG	431	462	735	796	840	795	853	877	893	9.5%
<i>Wght. avg ex MAG</i>										4.5%



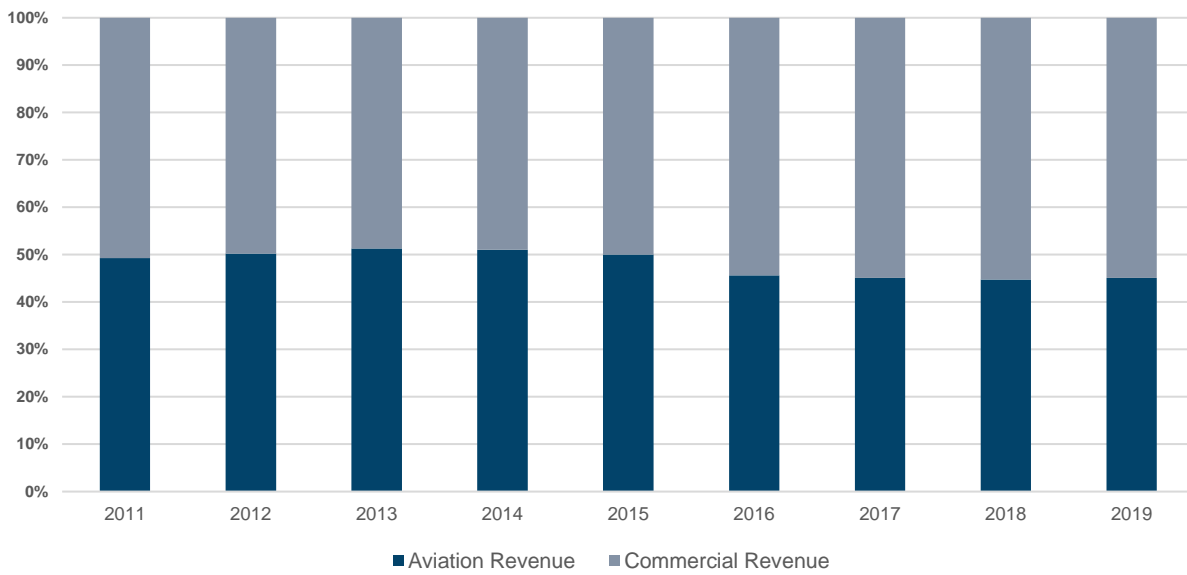
⁴⁰ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

⁴¹ Note to chart: Bristol data excluded for year 2014, Manchester revenue data prior to 2016 contains discounts given to airlines.

⁴² Note to chart: Bristol data calculated by adding aviation revenues and commercial yield together, which in turn were calculated by multiplying 2014 passenger numbers by aeronautical yield per passenger and commercial yield per passenger respectively, Data for these calculations was drawn from Bristol's 2015 annual report.

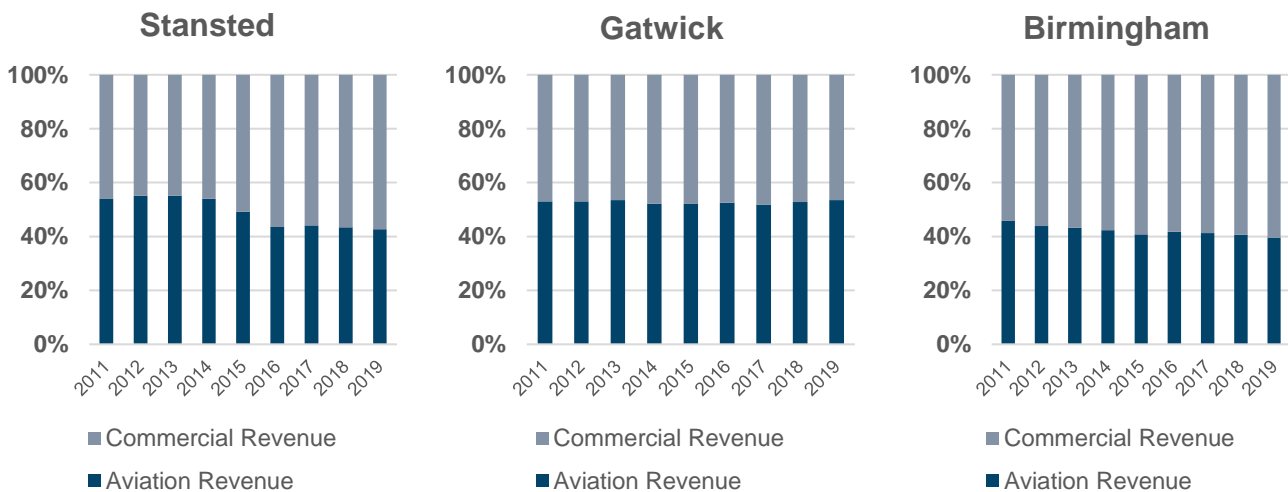
Aviation and Commercial Revenues Proportions

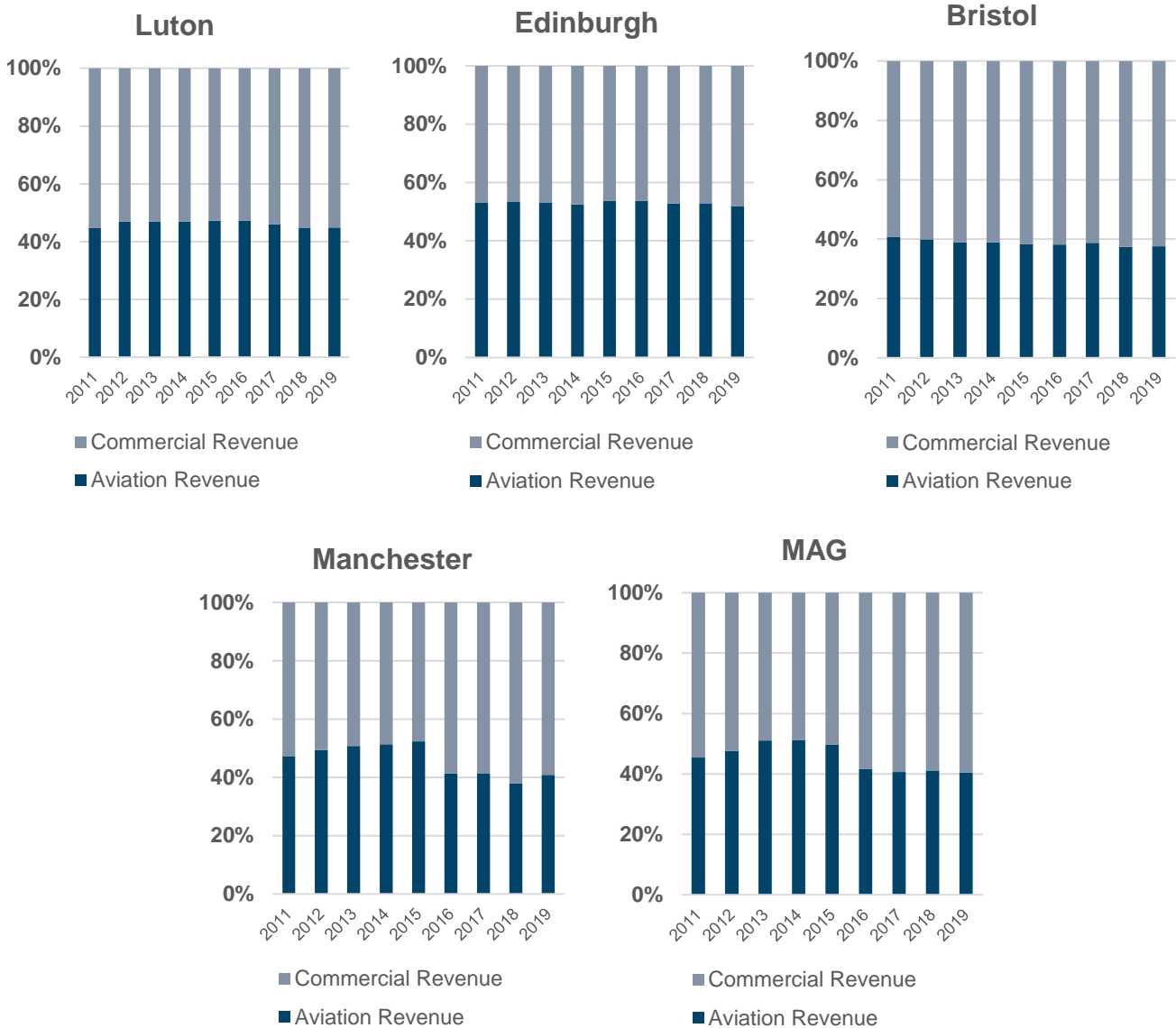
Figure 19: Total revenue split for all airports in benchmark group between 2011 and 2019



In total, when combining the revenues across all airports in our peer group, there is almost a clear 50:50 split of aviation to commercial revenues. After 2016 however, this proportion shifts to higher absolute commercial revenues and lower aviation revenues, despite the rapid increase in Passenger Numbers throughout this period. It is impossible to generalise given the unique circumstances of each airport, but we see from the previous sections on aviation and commercial revenues that in some cases this was driven by decreases in the former, and in others an increase in the latter. This evolving revenue split is summarised on the following chart for each airport where data are reported.

Figure 20: Share of Aviation and Commercial Revenues at each airport, 2011-2019





The proportion of commercial and aviation revenues are generally similar across the benchmark group of airports, however there are some small differences which are also reflected in the per passenger revenue trends and in some cases can be explained by traffic mix.

Gatwick and Edinburgh for example, appear to have higher proportions of aviation revenue and also higher proportions of long-haul passengers. They are also in the highest airports of the peer group for EBITDA and OPM.

Stansted, on the other hand, saw a significant revenue split shift, increasing commercial revenues and reducing aviation revenues per passengers.

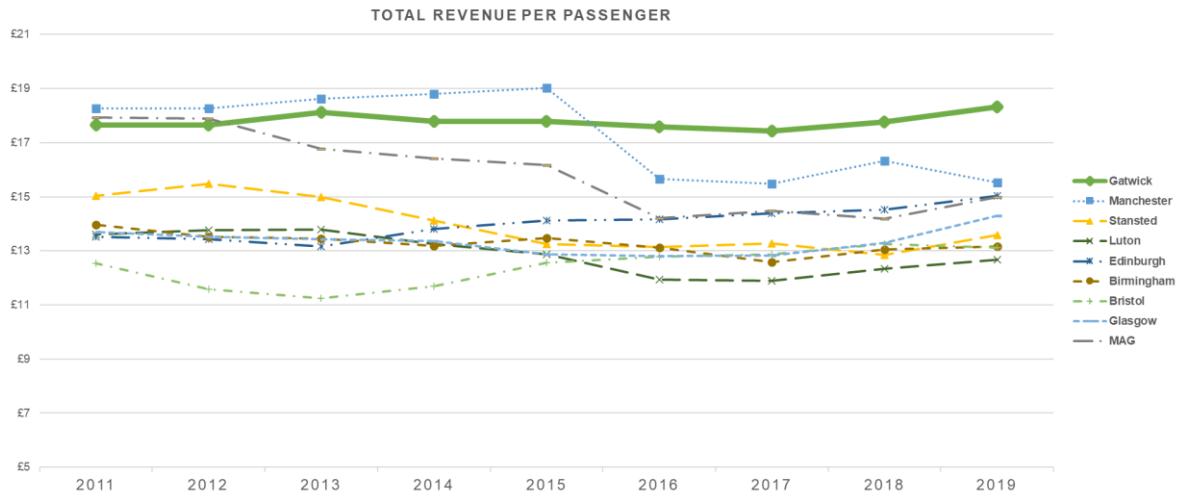
Luton, which is predominantly a low-cost carrier focused airport, saw its' aviation revenues stay flat in terms of both proportion and per passenger levels.

The reclassification at Manchester from aviation revenues pre-discount to post-discount is visible in the charts for both Manchester and for MAG; the years pre-2016 are not considered representative.

Reflecting the overall result of these trends, the following section shows total airport revenues per passenger in real 2019 prices.

Figure 21: Total Airport Revenues per passenger at 2019 prices at benchmark airports, 2011-2019^{43,44}

£	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019	
Gatwick	£17.7	£17.7	£18.1	£17.8	£17.8	£17.6	£17.4	£17.8	£18.3	0.5%	
Manchester	£18.3	£18.3	£18.6	£18.8	£19.0	£15.7	£15.5	£16.3	£15.5	-2.0%	
Stansted	£15.0	£15.5	£15.0	£14.1	£13.3	£13.1	£13.3	£12.9	£13.6	-1.3%	
Luton	£13.6	£13.8	£13.8	£13.2	£12.9	£11.9	£11.9	£12.3	£12.7	-0.9%	
Edinburgh	£13.5	£13.4	£13.2	£13.8	£14.1	£14.2	£14.4	£14.5	£15.0	1.3%	
Birmingham	£14.0	£13.5	£13.5	£13.2	£13.5	£13.1	£12.6	£13.1	£13.2	-0.7%	
Bristol	£12.5	£11.6	£11.2	£11.7	£12.6	£12.8	£12.9	£13.3	£13.1	0.6%	
Glasgow	£13.7	£13.5	£13.4	£13.4	£12.9	£12.8	£12.8	£13.3	£14.3	0.5%	
MAG	£17.9	£17.9	£16.8	£16.4	£16.2	£14.2	£14.5	£14.2	£15.0	-2.2%	
										Wght. avg ex MAG	-0.3%



Key Insights and Findings

- Gatwick retains the highest total revenue per passenger from 2016 onwards (and technically throughout the period since the early years of Manchester and MAG are distorted by the prior accounting of airline discounts) and its' total revenue per passenger remains relatively stable on a per passenger basis across the entire period.
- Gatwick's revenues average out at £17.50 per passenger, of which approximately £8 are commercial revenues and £9.50 are aviation revenues. This overall strong performance is due to maturing and high utilisation of its asset base, as the increased passenger numbers begin to reach Gatwick's capacity.
- For the other airports in the sample group, revenue averages between 2011 and 2019 at roughly £14 per passenger. Manchester's aviation revenue per passenger drops in 2016 and then steadily increases year over year through to 2019. The decrease is due to a reclassification between income and expenditures as presented in the financial accounts to reflect more appropriately certain rebates and discounts as a reduction of revenue, rather than a cost of sale. Therefore, pre-2016 MAG data is less comparable in this area.

3.4.3 Airport Expenditures

Overview

Total airport expenditure is grouped into two main categories for this analysis: Capital and Operating Expenditure. The two elements together are used as a proxy for spend per passenger but are also analysed separately to highlight the underlying drivers more clearly. As with revenues, there is little consistency across how expenditures are reported in financial statements and therefore we have had to apply some judgment in extracting and organising the reported data to ensure comparability. Definitions for each category are provided below.

⁴³ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

⁴⁴ Note to chart: Manchester revenue data prior to 2016 contains discounts given to airlines.

Capital Expenditure

Total Capital Expenditure has been defined as Fixed Asset Additions. This will typically include investments in airfield and terminal infrastructure and capacity, as well as associated costs that are capitalised and subsequently depreciated. There are a number of Capital Expenditure numbers that could be taken from the accounts with slightly different implications. We have chosen to take the Fixed Asset Additions from the Fixed Asset notes as disclosed as the closest actual Capital Expenditure figure. This is to ensure consistency in the analysis.

Operating Expenditure

Operating Expenditure in this context is defined as an Adjusted Operating Cost that excludes exceptional items, and before any revaluations and financing costs (e.g., interest); a 'normalised' approach to assessing operating costs. Depreciation and amortisation are also excluded, in line with economic regulatory approaches but different to generally accepted accounting definitions.

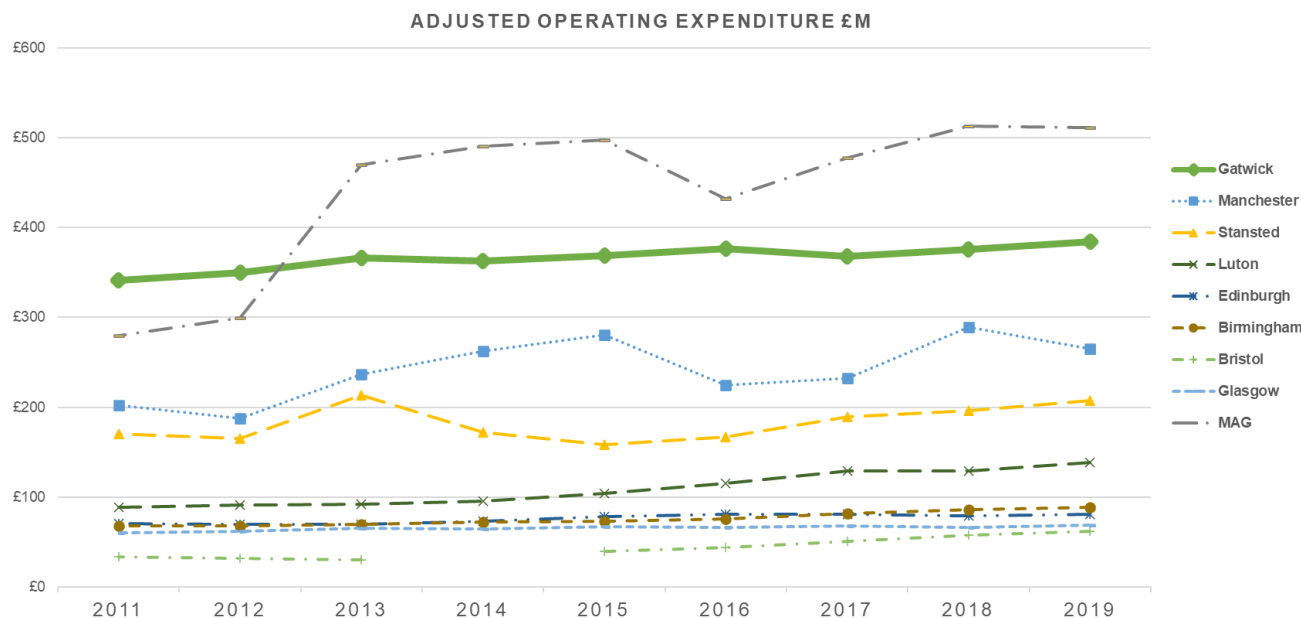
This should make the value more comparable between airports and against non-financial information such as passengers. At airports, operating expenditure is mostly comprised of staff costs, but also includes other costs such as insurance premiums and utilities related spend.

Operating Expenditure (excluding Depreciation and Amortisation)

Measured in real terms at 2019 prices and excluding depreciation and amortisation, operating expenses at the benchmark group of airports exhibited an increase of around 3% per year between 2011 and 2019.

Figure 22: Annual operating expenditure GBP Millions, 2011-2019 (Real 2019 CPI)⁴⁵

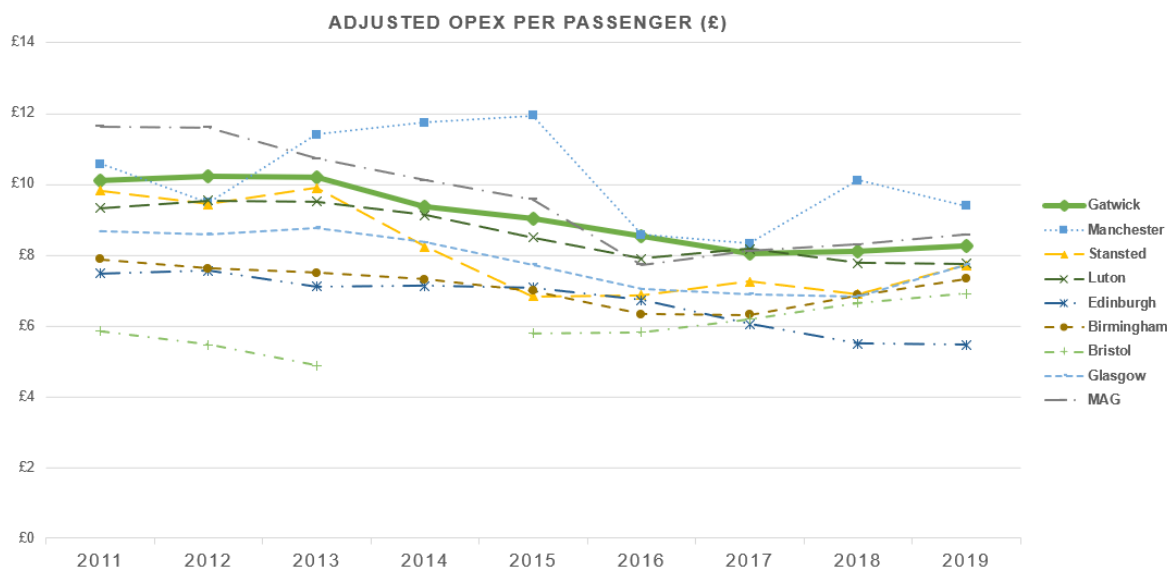
£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	342	350	366	363	369	376	368	376	385	1.5%
Manchester	202	188	237	262	281	225	232	289	265	3.4%
Stansted	177	165	213	172	159	167	189	196	207	2.0%
Luton	89	92	92	96	104	115	129	129	139	5.8%
Edinburgh	70	70	70	73	78	81	81	79	80	1.7%
Birmingham	68	68	69	72	73	75	81	86	89	3.4%
Bristol	34	32	30	39	44	44	50	57	62	7.8%
Glasgow	60	62	65	64	67	66	68	66	69	1.8%
MAG	280	300	470	490	497	432	478	513	511	7.8%
										Wght. avg ex MAG 2.8%



⁴⁵ Source: Table. Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

Figure 23: Adjusted operating expenditure per passenger at 2019 prices, 2011-2019⁴⁶

£	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	£10.1	£10.2	£10.2	£9.4	£9.0	£8.5	£8.1	£8.1	£8.3
Manchester	£10.6	£9.5	£11.4	£11.7	£11.9	£8.6	£8.3	£10.1	£9.4
Stansted	£9.8	£9.4	£9.9	£8.2	£6.8	£6.9	£7.2	£6.9	£7.7
Luton	£9.3	£9.5	£9.5	£9.1	£8.5	£7.9	£8.2	£7.8	£7.8
Edinburgh	£7.5	£7.6	£7.1	£7.1	£7.0	£6.5	£6.1	£5.5	£5.5
Birmingham	£7.9	£7.6	£7.5	£7.3	£7.0	£6.3	£6.3	£6.9	£7.3
Bristol	£5.9	£5.5	£4.9		£6	£5.8	£6.2	£6.7	£6.9
Glasgow	£8.7	£8.6	£8.8	£8.4	£7.7	£7.0	£6.9	£6.8	£7.7
MAG	£11.6	£11.6	£10.7	£10.1	£9.6	£7.7	£8.1	£8.3	£8.6



Key Insights and Findings

- Operating expenditure per passenger, when removing depreciation and amortisation, typically ranges from around £5 to £12 over the 2011 to 2019 period.
- Almost all airports' operating costs per passenger dropped (in real terms) in the period from 2011 to 2019, suggesting that there may have been some operating cost efficiencies for almost all airports, likely driven by the growth in passenger numbers during this time.
- Manchester's operating expenditure dropped in 2016 then steadily increased thereafter through to 2019; the large drop was partly due to the reclassification of airline rebates and discounts from a cost of sale to being netted off against aviation revenue.

Operating Expenditure (including Depreciation and Amortisation)

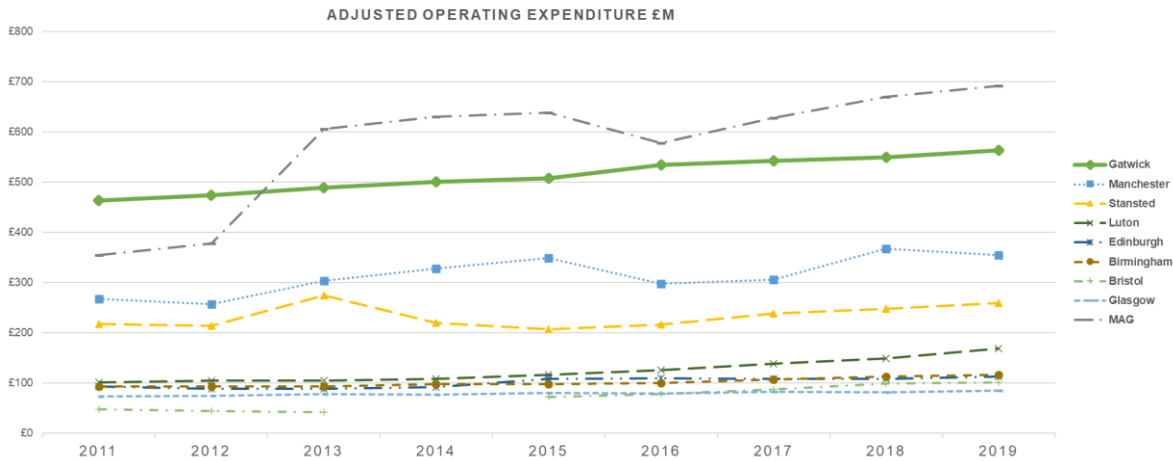
For consistency with the overall profitability metrics presented earlier in the report, we include the following analysis of operating expenses, this time with depreciation and amortisation included. Given the significance of these items in many cases, the results are materially different although the overall picture of gradual decreases in real Operating Expenditure per passenger remains.

⁴⁶ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

Figure 24: Annual operating expenditure (incl. Deprn. & Amort.), 2011-2019^{47,48}

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	463	474	489	500	507	534	543	549	564
Manchester	268	257	304	328	348	297	306	367	355
Stansted	217	214	274	220	207	216	239	248	260
Luton	102	105	105	109	117	125	139	150	168
Edinburgh	93	88	89	93	108	110	108	109	113
Birmingham	93	93	94	98	98	101	108	113	116
Bristol	48	45	42		73	79	88	99	102
Glasgow	73	75	78	77	80	79	83	82	85
MAG	355	378	606	630	638	578	628	670	692

	CAGR 2011-2019
Gatwick	2.5%
Manchester	3.6%
Stansted	2.3%
Luton	6.5%
Edinburgh	2.4%
Birmingham	2.8%
Bristol	9.9%
Glasgow	1.9%
MAG	8.7%
Wght. avg ex MAG	3.3%



*Chart includes Depreciation and Amortisation

Figure 25: Operating expenditure per passenger at 2019 prices (incl. Deprn. & Amort.), 2011-2019⁴⁹

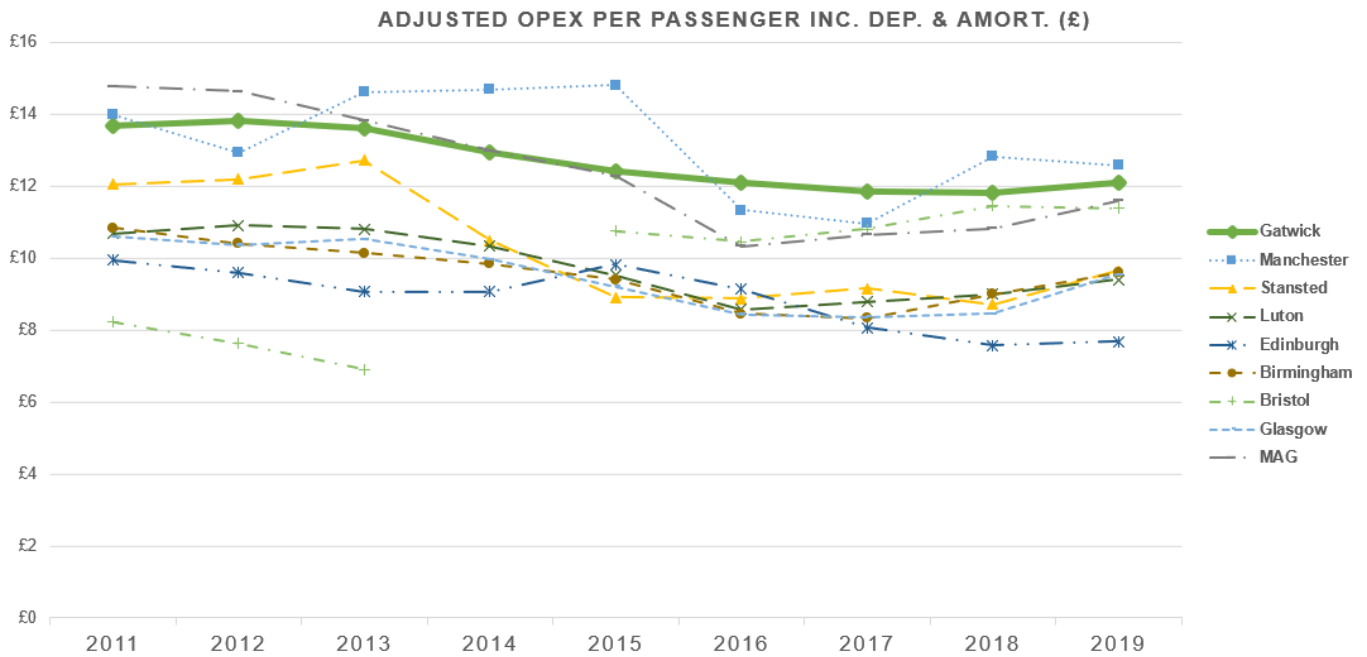
£	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	£13.7	£13.8	£13.6	£12.9	£12.4	£12.1	£11.9	£11.8	£12.1
Manchester	£14.0	£13.0	£14.6	£14.7	£14.8	£11.4	£11.0	£12.8	£12.6
Stansted	£12.1	£12.2	£12.7	£10.5	£8.9	£8.9	£9.2	£8.7	£9.7
Luton	£10.7	£10.9	£10.8	£10.3	£9.5	£8.6	£8.8	£9.0	£9.4
Edinburgh	£9.9	£9.6	£9.1	£9.1	£9.8	£8.8	£8.1	£7.6	£7.7
Birmingham	£10.9	£10.4	£10.2	£9.9	£9.4	£8.5	£8.3	£9.0	£9.6
Bristol	£8.3	£7.6	£6.9		£11	£10.5	£10.8	£11.5	£11.4
Glasgow	£10.6	£10.4	£10.5	£10.0	£9.2	£8.4	£8.4	£8.5	£9.6
MAG	£14.8	£14.6	£13.8	£13.0	£12.3	£10.3	£10.7	£10.8	£11.6

	CAGR 2011-2019
Gatwick	-1.5%
Manchester	-1.3%
Stansted	-2.8%
Luton	-1.6%
Edinburgh	-3.2%
Birmingham	-1.5%
Bristol	4.0%
Glasgow	-1.3%
MAG	-3.0%

⁴⁷ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

⁴⁸ Source: Chart, Airport financial statements, PA Analysis.

⁴⁹ Source: Chart, Airport financial statements, PA Analysis.



Key Insights and Findings

- Operating expenditure per passenger has followed a generally downward trend across the benchmark group of airports from around £12 per passenger in 2011 to around £10 per passenger in 2019 (inflation adjusted).
- Manchester's operating expenditure dropped in 2016 then steadily increased thereafter through to 2019; the large drop was partly due to the reclassification of airline rebates and discounts from a cost of sale to being netted off against aviation revenue.
- Gatwick and Manchester, which are the two largest airports in the sample, have consistently been the highest cost airports in the group, throughout the sample period. This is despite the cost reclassifications highlighted at Manchester.
- Edinburgh experienced the largest reduction in Operating Expenditure per passenger, falling by 23% to £7.7 in the analysis period. This unit cost reduction was accompanied by a c.50% increase in passenger numbers between 2013 and 2019.
- Bristol is the main outlier in this metric in the early years, then jumping significantly from 2013 to 2015 and then staying at a higher level. One reason for the higher level of costs per passenger for Bristol from 2015 onwards is the significant amortisation charge (£11.5m per year in nominal prices) on intangible assets following the SWAL group consolidation in 2014. This corporate restructuring and its impacts are explained in earlier sections of the report and will not be repeated here.
- Bristol and Glasgow, the two smallest airports in the sample, have consistently been at the lower end of the group with the larger airports in Birmingham and Edinburgh being in the same cluster.

Capital Expenditure

Over the period annual Capital Expenditure has varied widely by airport, illustrating the variable nature of these costs, driven by typically large and lumpy infrastructure upgrades or additions.

Figure 26: Annual total Capital Expenditure, 2011-2019 (Real 2019 CPI)⁵⁰

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	266	263	218	197	230	300	231	261	189	-4.2%
Manchester	75	66	51	51	68	117	265	410	375	22.4%
Stansted	22	25	64	49	46	48	71	155	93	19.7%
Luton	9	6	4	14	22	51	61	48	25	14.6%
Edinburgh	15	14	14	28	21	20	52	67	59	18.4%
Birmingham	17	22	31	25	10	20	19	32	33	8.6%
Bristol	9	14	11		31	36	35	45	55	25.3%
Glasgow	13	10	18	19	13	24	26	22	14	1.3%
MAG	98	64	140	121	135	192	356	602	541	23.8%
Wght. avg ex MAG										8.9%

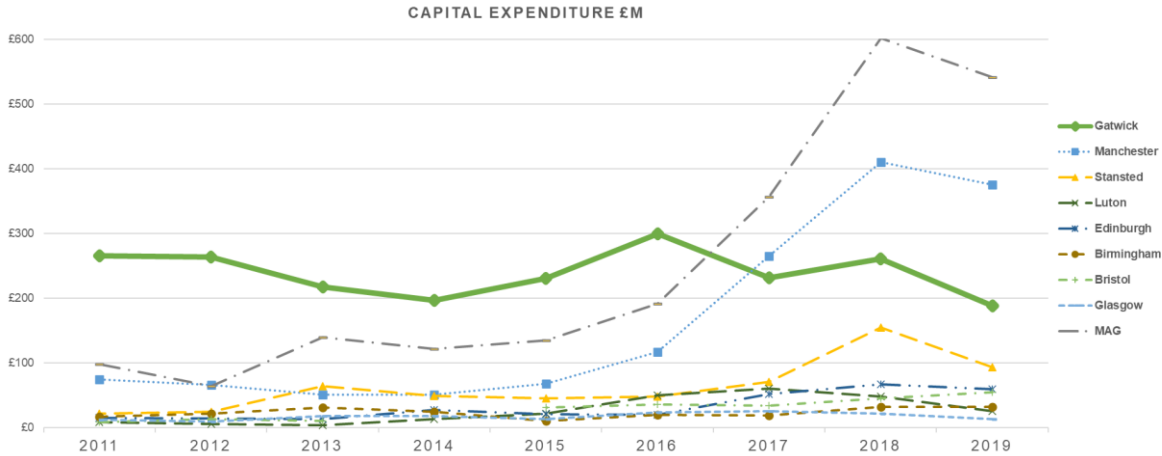


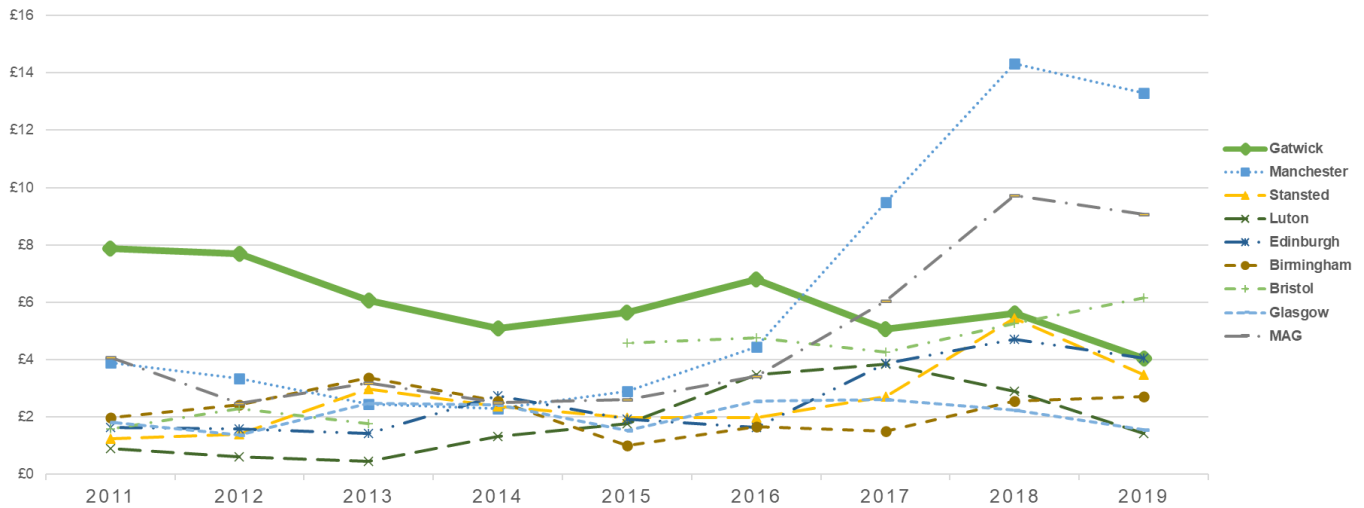
Figure 27: Capital expenditure per passenger at 2019 prices at benchmark airports, 2011-2019⁵¹

£	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	£7.9	£7.7	£6.1	£5.1	£5.7	£6.8	£5.1	£5.6	£4.0
Manchester	£3.9	£3.3	£2.5	£2.3	£2.9	£4.5	£9.5	£14.3	£13.3
Stansted	£1.2	£1.4	£3.0	£2.4	£2.0	£2.0	£2.7	£5.4	£3.5
Luton	£0.9	£0.6	£0.5	£1.3	£1.8	£3.5	£3.8	£2.9	£1.4
Edinburgh	£1.6	£1.6	£1.4	£2.7	£1.9	£1.6	£3.9	£4.7	£4.0
Birmingham	£2.0	£2.4	£3.4	£2.6	£1.0	£1.7	£1.5	£2.6	£2.7
Bristol	£1.6	£2.3	£1.8		£4.6	£4.7	£4.3	£5.2	£6.1
Glasgow	£1.8	£1.4	£2.5	£2.4	£1.5	£2.5	£2.6	£2.2	£1.6
MAG	£4.1	£2.5	£3.2	£2.5	£2.6	£3.4	£6.0	£9.7	£9.1

⁵⁰ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

⁵¹ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

CAPEX PER PASSENGER



Key Insights and Findings

- During the analysis period between 2011 and 2019 Gatwick invested c. £2bn with Capital Expenditure averaging £200m per annum and never falling far below the average.
- During the same period, Manchester had the next largest Capital Expenditure outlay of c. £1.4bn, with most of this investment falling between 2017 and 2019, being the initial phases of the Manchester Airport Transformation Programme that has doubled the size of Terminal 2 and upgraded other facilities.
- Edinburgh saw a c.50% increase in Passenger Numbers between 2013 and 2019 and during the three pre-pandemic years between 2017 and 2019 Capital Expenditure increased in support of that growth. This included a terminal expansion, additional stands, and improvements to the baggage hall.
- Similarly, Luton's cumulative Capital Expenditure increased by just over £100m between 2015 and 2017, which included investment in the redesign and expansion of the terminal plus upgrades in other related facilities. This period preceded the change in concession share ownership from Ardian to Infrabridge in 2018. The capital investment programmes have continued during and after this time as may be seen in the 2018 and 2019 total Capex figures.
- When normalised on a per passenger basis, Capex has also been rising across the comparator group. They are relatively closely grouped – generally ranging between £2 and £4 per annum.
- Gatwick has consistently invested more per passenger than the other airports in the comparison group prior to 2016 (often nearly double the nearest comparator). The only exceptions to this are Manchester's transformation programme (shows very strongly in the 2017 and later data) and Bristol in 2019.
- In real terms, the largest relative increases in Capital Expenditure per passenger were at Manchester, Stansted, and Bristol. Most of this additional investment came between 2016 and 2019 due to various infrastructure projects in support of passenger growth or asset renewal.

Total Expenditure

Total Expenditure as presented in this report consists of both Capital Expenditure and Operating Expenditure added together.

In accounting terminology, this would not be regarded as 'Total Expenditure' since Capital Expenditure will be capitalised on the Balance Sheet and depreciated or amortised over the relevant asset's useful life. The resulting notional charge (depreciation) would then be recognised in the Income and Expenditure Account (under IFRS) or Profit and Loss Account (under UK GAAP) in this analysis period.

Total expenditure as presented, has been defined (as capital plus revenue expenditure), calculated and agreed with the CAA for the purpose of this report and the normal economic regulatory aspects of the airport sector. Whilst differing from the accounting definition this is an approach to total expenditure commonly taken by economic regulators.

As with revenues, airport expenditures have been analysed in both nominal and real terms⁵², for the airports as a whole and on a per passenger basis. In this section of the report total expenditures and per passenger metrics are both presented on a real basis, at 2019 prices.

Over the period real total expenditures at the benchmark group grew at a CAGR of 4.8% (excluding MAG). This was similar to the Passenger Number growth of 5.1%, indicating that average expenditures per passenger remained largely constant overall.

Figure 28: Total Expenditure at benchmark airports, 2011-2019 (Real 2019 CPI)⁵³

£m	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR 2011-2019
Gatwick	607	613	584	559	599	676	599	637	573	-0.7%
Manchester	277	254	288	313	349	341	497	699	640	11.0%
Stansted	199	190	277	222	204	215	260	350	301	5.3%
Luton	97	97	97	110	126	166	190	177	164	6.8%
Edinburgh	86	84	84	101	99	101	133	146	140	6.3%
Birmingham	85	90	100	98	84	95	101	118	122	4.6%
Bristol	43	46	40	70	70	80	85	103	116	13.3%
Glasgow	72	72	83	83	81	90	94	88	83	1.7%
MAG	378	364	610	612	632	624	834	1,115	1,052	13.7%
Wght. avg ex MAG										4.8%

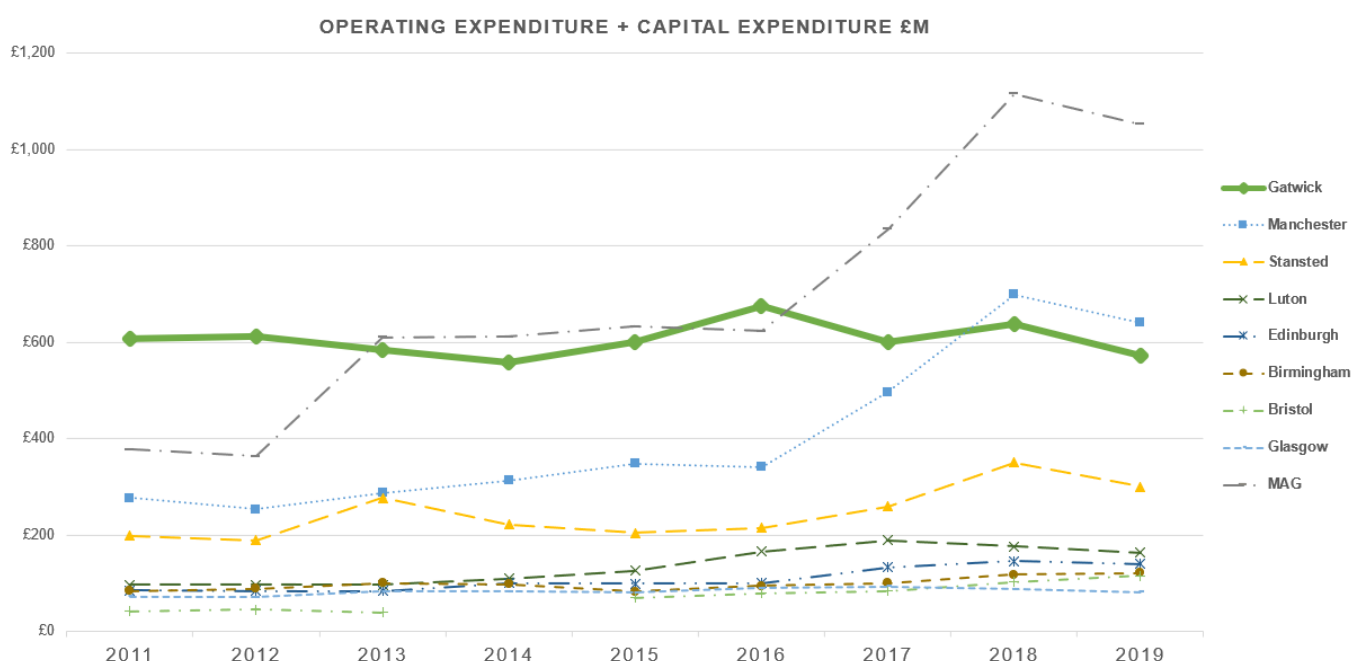


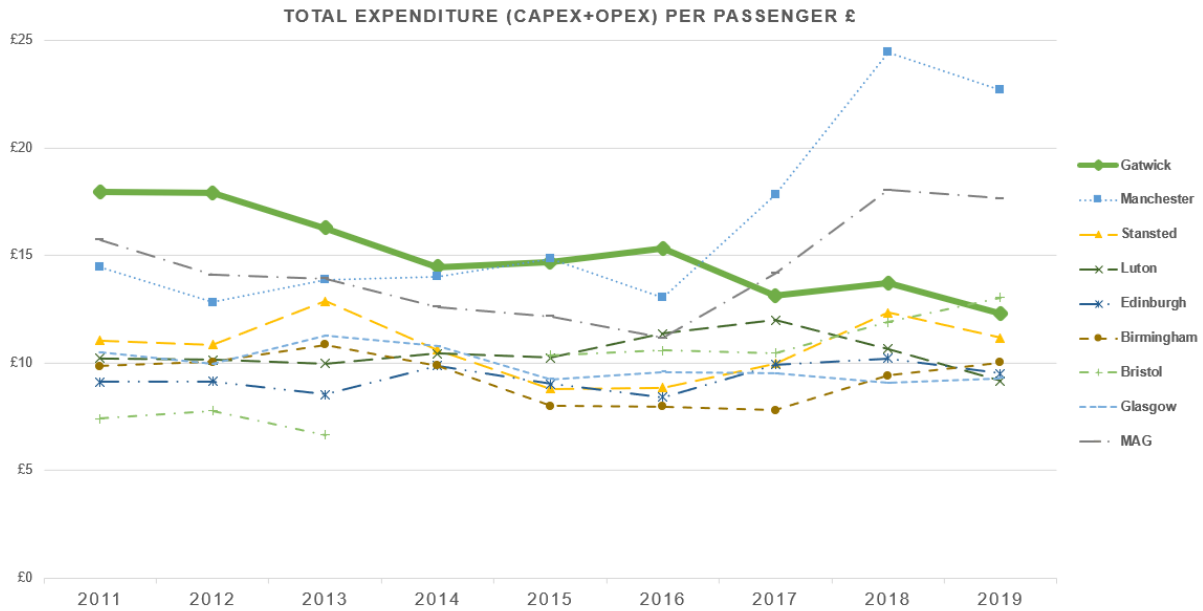
Figure 29: Total Expenditure per passenger at 2019 prices at benchmark airports, 2011-2019⁵⁴

£	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gatwick	£18.0	£17.9	£16.3	£14.5	£14.7	£15.3	£13.1	£13.7	£12.3
Manchester	£14.5	£12.8	£13.9	£14.0	£14.8	£13.0	£17.8	£24.4	£22.7
Stansted	£11.1	£10.8	£12.9	£10.6	£8.8	£8.8	£10.0	£12.3	£11.2
Luton	£10.2	£10.2	£10.0	£10.4	£10.2	£11.4	£12.0	£10.7	£9.2
Edinburgh	£9.1	£9.1	£8.5	£9.9	£8.9	£8.1	£9.9	£10.2	£9.5
Birmingham	£9.8	£10.0	£10.9	£9.9	£8.0	£8.0	£7.8	£9.4	£10.0
Bristol	£7.5	£7.8	£6.7		£10.4	£10.6	£10.4	£11.9	£13.1
Glasgow	£10.5	£10.0	£11.3	£10.8	£9.3	£9.6	£9.5	£9.1	£9.3
MAG	£15.7	£14.1	£13.9	£12.6	£12.2	£11.1	£14.2	£18.0	£17.7

⁵² Only real figures are reproduced here, following adjustment based on CPI index in Table 5.

⁵³ Source: Table, Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).

⁵⁴ Source: Airport financial statements, PA Analysis (Shown as real rates adjusted to 2019 CPI base).



Key Insights and Findings

- Total expenditure (Capital plus Operating Expenditure) per passenger in real terms has remained reasonably constant over the analysis period for Birmingham, Edinburgh, Glasgow, Luton, and Stansted.
- However, total expenditure per passenger at Manchester and Bristol have increased more than the other airports.
- Gatwick's total expenditure has steadily declined over the same period.
- More detailed commentary is provided in the preceding sections covering the component parts of total expenditure. They are not repeated here.

4 Findings from 2020 to 2022

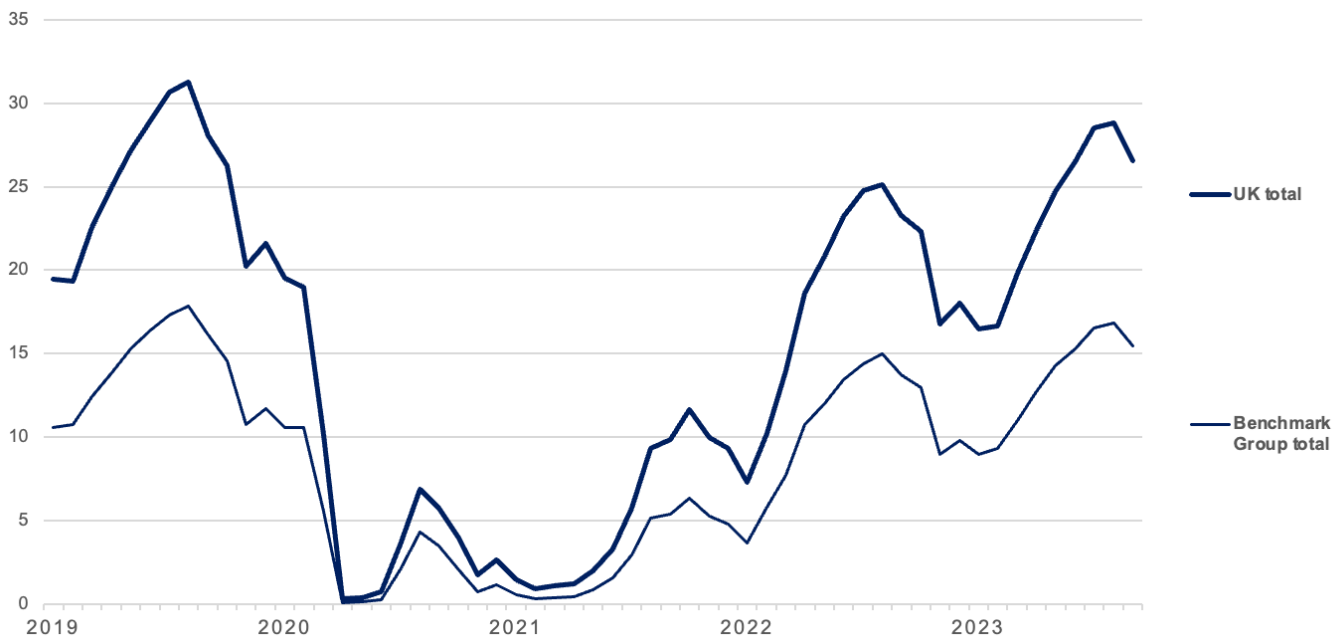
4.1 Introduction

The last three years have been the most turbulent in commercial aviation's history due to the COVID-19 pandemic and associated travel shut-downs. Airports and airlines responded to the closure of inbound and outbound aviation market on a daily basis and managed through the crisis which resulted in the almost complete shutdown of the industry for months at a time.

At the time of writing, in Q4 2023 UK and global aviation figures are on the way to full recovery, compared to pre-pandemic levels. But the extreme impact of the pandemic on airport operations and financial results means that this period cannot be considered 'representative' of more normal times.

What this period does highlight is the sensitivity of airports to passenger volumes and relatively high fixed costs of airports – even when operations were almost zero, costs did not decline commensurately.

Figure 30: Monthly passengers at UK Airports (millions), January 2019 - September 2023⁵⁵



Data from 2019 to 2022 are highly volatile and given the scale of the COVID impact airport specific factors are not always observable. In the charts below we present the relevant data for 2019 to 2022 (the most recent consistent accounting period obtainable at the time of writing this report. We replicate each metric reported for the 2011 to 2019 period and flag key issues that are observable in the data and any reliable airport specific factors that are directly observable.

We have detailed the scale of COVID support programmes in Table 8 in the Appendix as far as we can obtain from the relevant accounts and associated media reports. Below we set out some key recurrent issues reported widely by airports in their financial statements through the COVID period:

- Company accounts suggest that airports serving more long-haul routes were able to take some benefit from increased cargo flows e.g., Gatwick and Stansted.
- The CJRS furlough scheme offered a cushion regarding staff costs, but these are only roughly 20% of operational costs so not significant. Many airports cut workforce and those that did report declines in workforce of roughly one-third.
- Some airports pivoted quickly to European short haul to destinations that had lower COVID restrictions and/or orientated towards the summer holiday market e.g., the Balearics in an effort to generate revenue.
- Non-core assets were sold e.g., property (MAG reportedly generated around £400m in sales during the COVID period).

⁵⁵ Source: UK CAA Airport statistics.

- Infrastructure/transformation programmes were put on hold. Delays in projects affect the pace at which they come online which then impact on subsequent years operating profit. This makes any corresponding Capital Expenditure metrics hard to interpret.
- Total expenditure at airports is relatively flat through the pandemic. This represents the high fixed costs of airport operations which cannot easily be unwound.

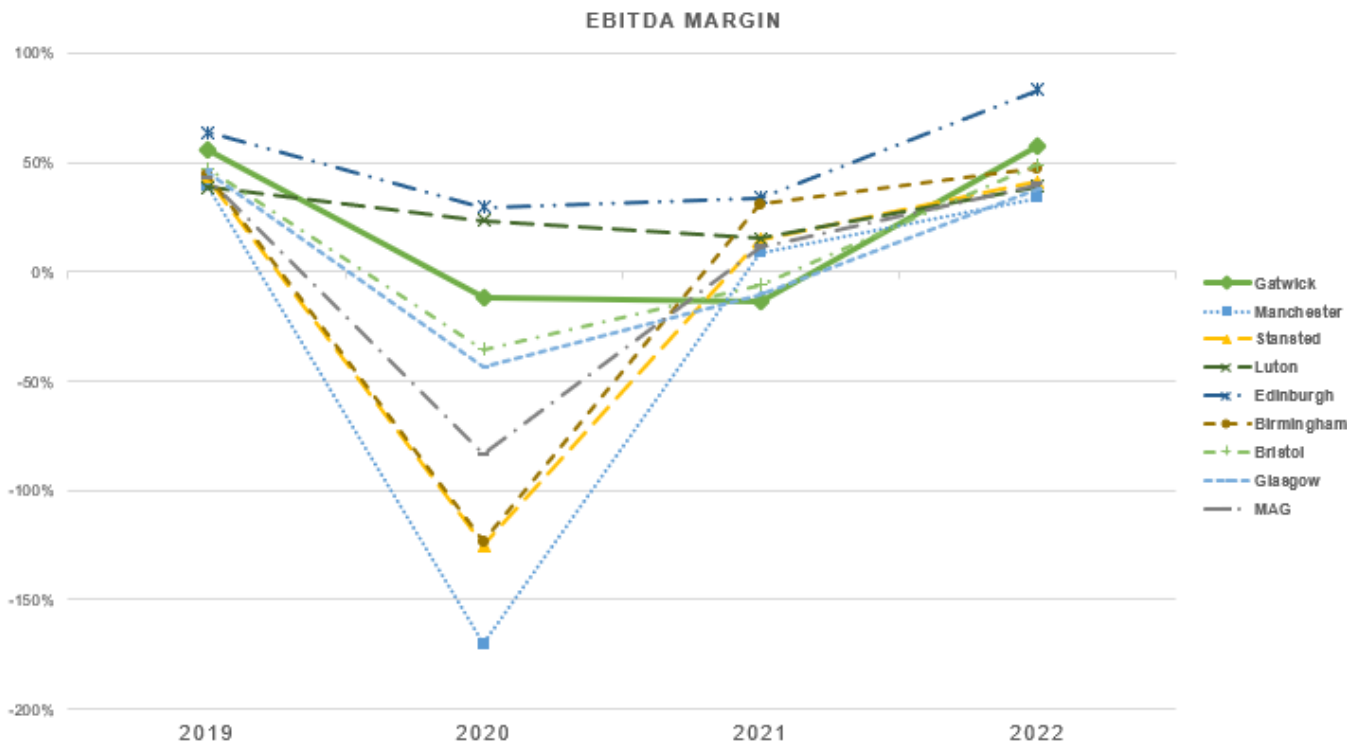
4.2 Profitability or Margin Findings

Gatwick fares relatively well on profitability measures, we observe a flatter profile for EBITDA and OPM margin, but this correspondingly means that in 2021, Gatwick presents the lowest values for these metrics while the other airports in the comparison group experience a sharp uptick in results. Gatwick experienced a sharp downturn in revenue in 2020 and revenue was broadly flat in 2021 (also the case for Edinburgh, Bristol and Luton), whereas many of the other airports in the comparison group saw an improvement in 2021 (notably MAG, Glasgow and Birmingham).

Whilst it is difficult to unpick precisely why this is the case for each airport, one potential contributing factor is that several airports – notably Birmingham, Manchester, MAG, and Stansted – prepare their accounts on a Financial Year (FY) basis, meaning that their 2020/21 accounts do not include the relatively “normal” period in the first three months of 2020, therefore causing their performance to drop below peers who report on a Calendar Year (CY) basis. This is effectively the same cause of some potential comparability we see in the first half of this report for 2019 specifically for the aforementioned airports.

When comparing post-pandemic performance in individual years this distinction should be considered. Overall, relative to pre-COVID revenues, these differences are small in the grand scheme of airport operations relative to the sheer drop in passenger numbers:

Figure 31: EBITDA and EBITDA Margin summary results for benchmark airports, 2019-22⁵⁶



⁵⁶ Source: Airport financial statements, PA Analysis.

Figure 32: Adjusted Operating Profit (OPM) summary results for benchmark airports, 2019-22⁵⁷

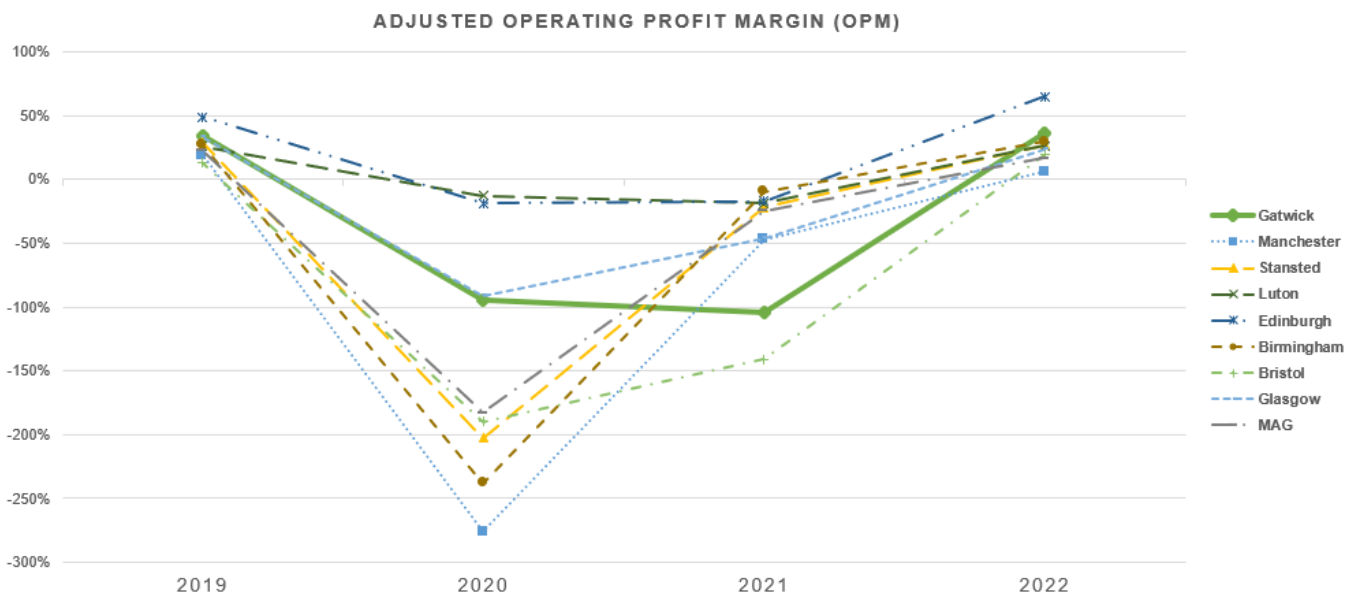
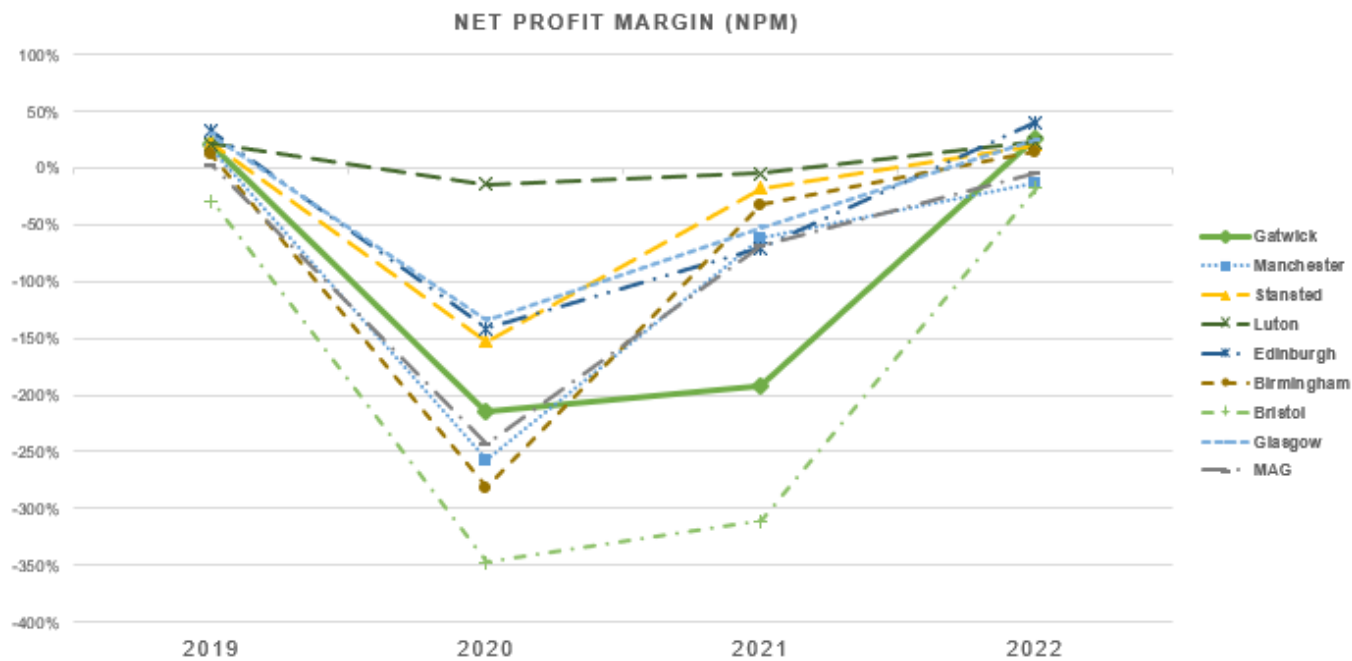


Figure 33: Net Profit (NPM) summary results for benchmark airports, 2019-2022⁵⁸



⁵⁷ Source: Airport financial statements, PA Analysis.

⁵⁸ Source: Airport financial statements, PA Analysis.

4.3 Returns Findings

These metrics show a similar pattern to the margin-based measures.

Figure 34: Return on Capital Employed (ROCE) for benchmark airports, 2019-22⁵⁹

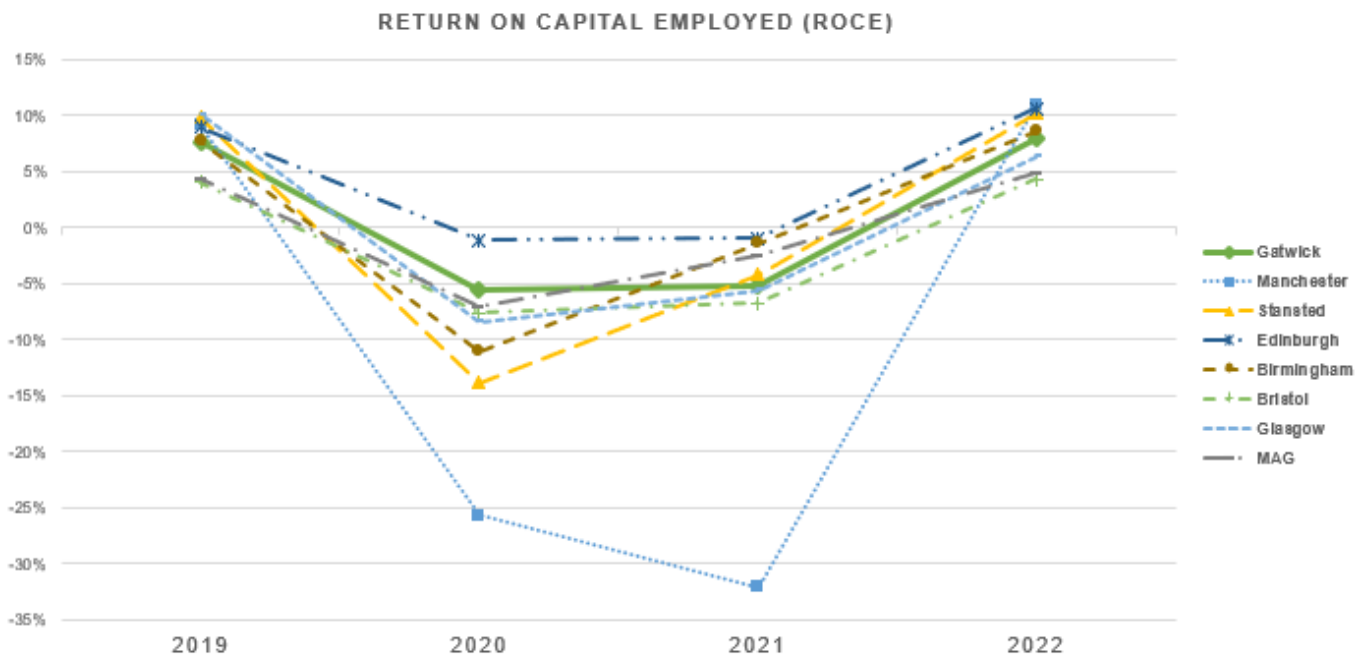
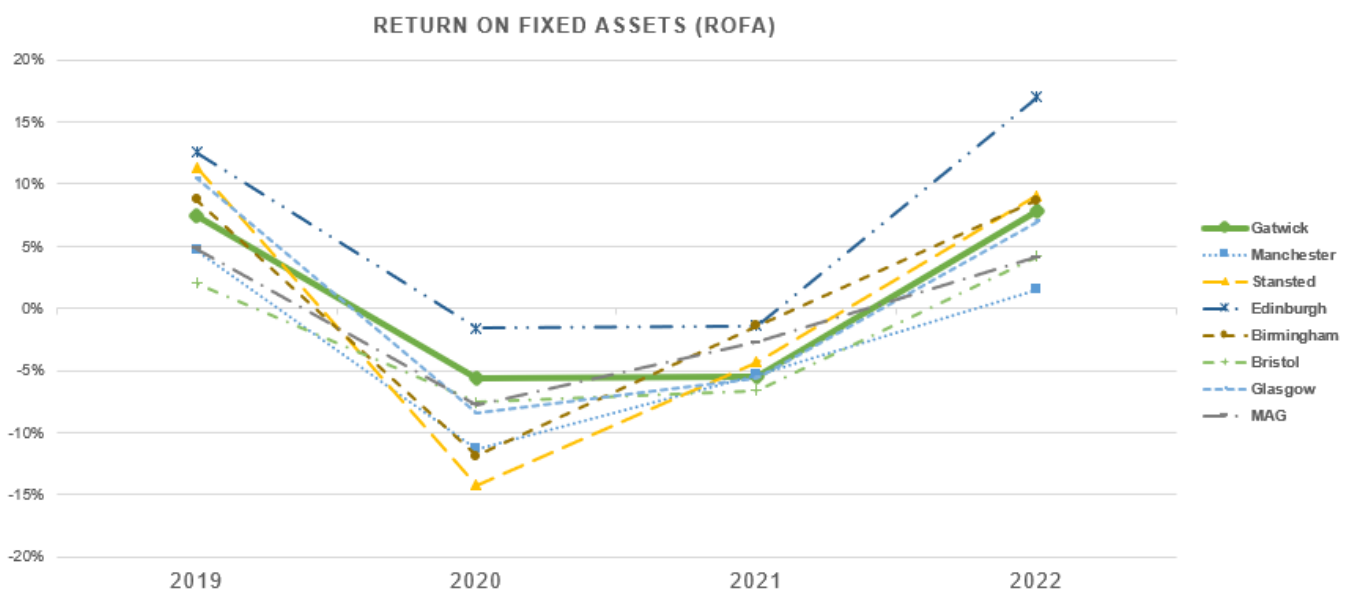


Figure 35: Return on Fixed Assets (ROFA) for benchmark airports, 2019-22⁶⁰



The sharply negative 2020 and 2021 drop in Manchester's ROCE is explained by two factors.

1. Manchester's operating profit turned negative due to the pandemic in 2020 and 2021, reducing the size of the numerator in this metric.
2. The metric was influenced by a 2020/21 reduction in trade payables due to intra-company transactions, notably the transfer of interest-bearing loans to subsidiaries in return for a dividend payment. As a result, Manchester's ROCE was also impacted by the settlement of current receivables owed by subsidiaries in the group.

⁵⁹ Source: Airport financial statements, PA Analysis.

⁶⁰ Source: Airport financial statements, PA Analysis.

Whilst the latter factor may not explicitly reduce ROCE, it caused considerable fluctuations in the metric's denominator and overall contributed to Manchester's abnormal ROCE in 2020 and 2021. As demonstrated in Figure 34, Manchester's ROCE stabilised in 2022.

4.4 Contextual Metrics

Figure 36: Annual passenger numbers per financial statements, 2019-22⁶¹

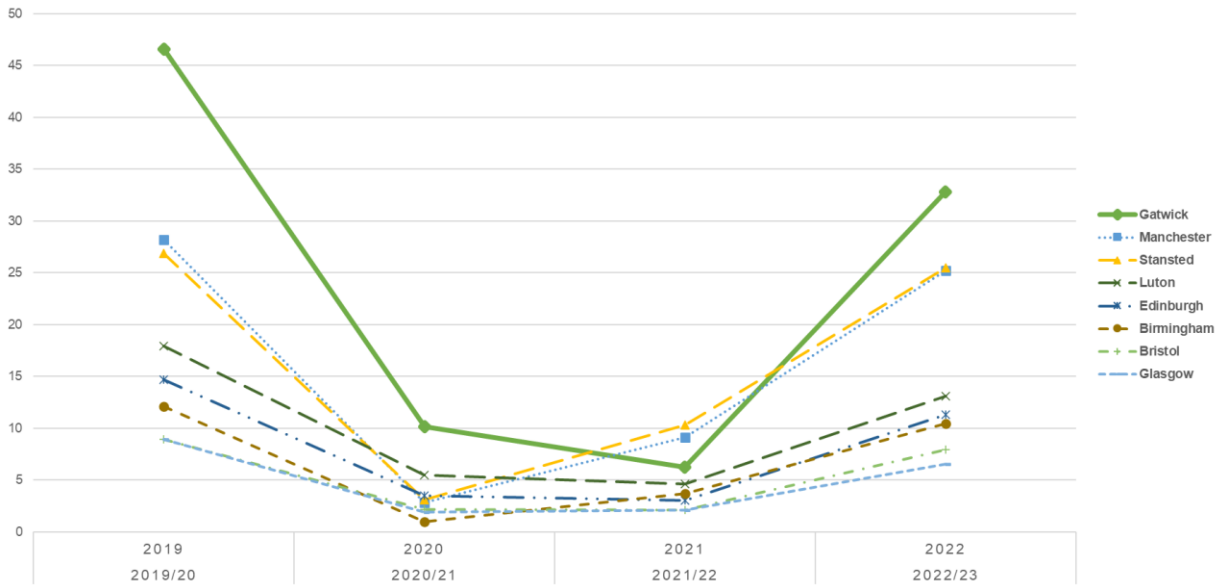
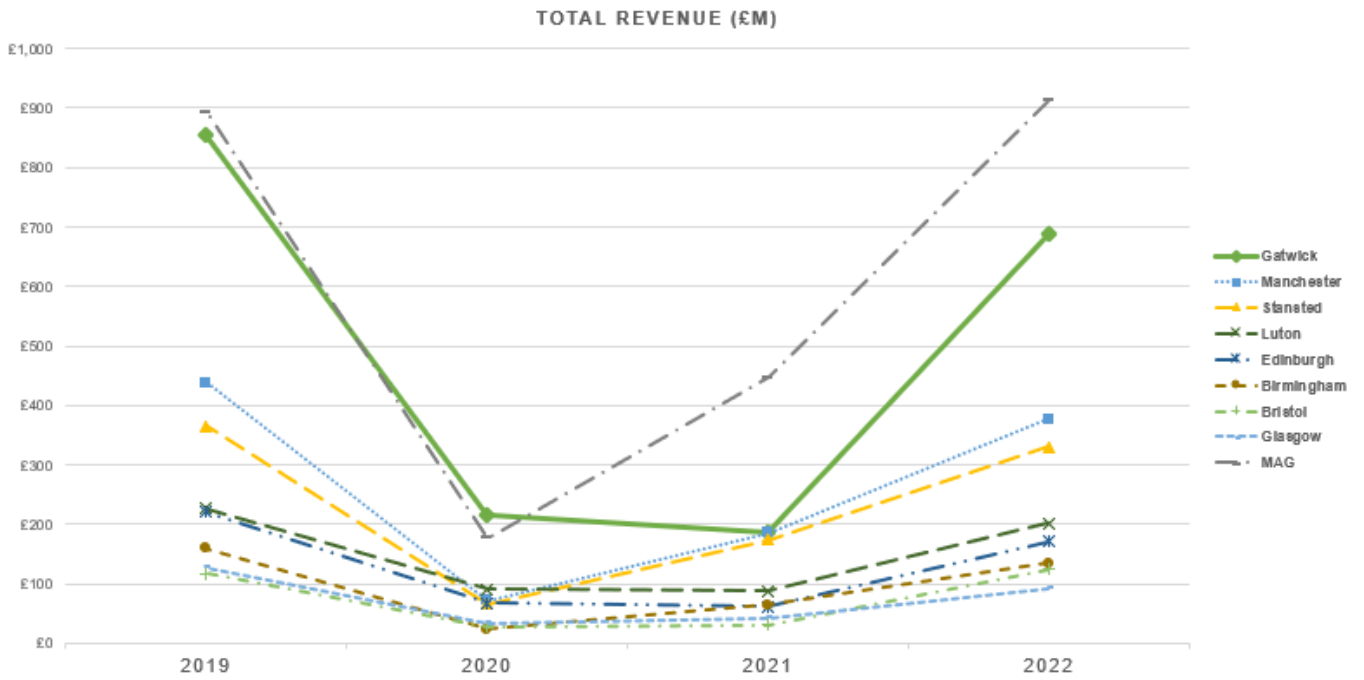


Figure 37: Total Airport Revenues at benchmark airports real 2019 values, 2019-22⁶²



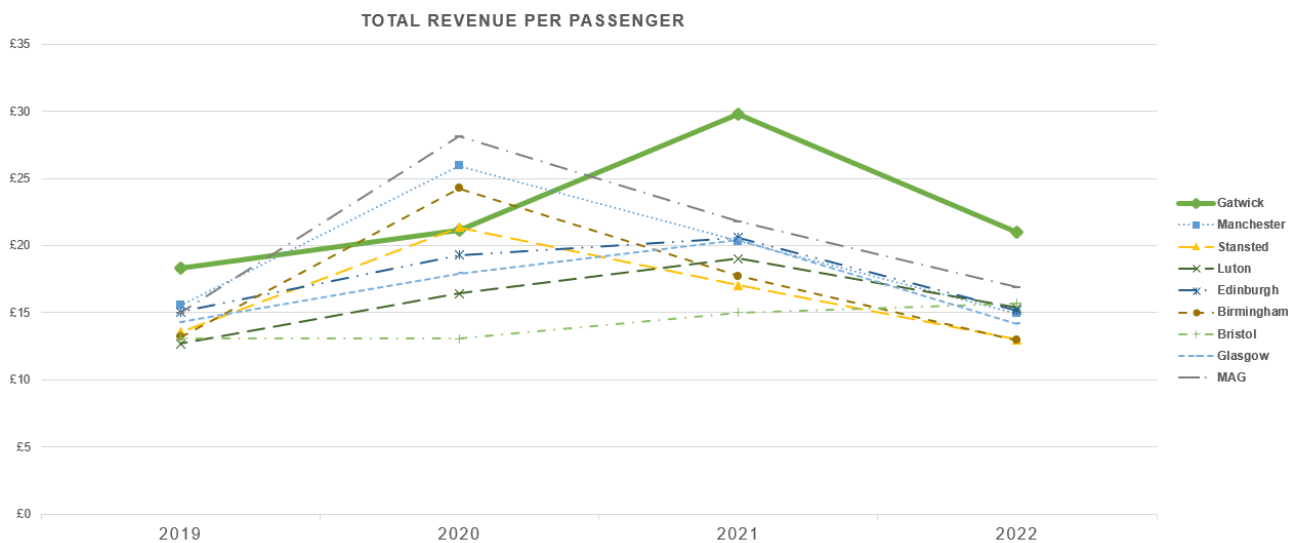
⁶¹ Source: Airport financial statements, PA Analysis.

⁶² Source: Airport financial statements, PA Analysis.

Total Airport Revenues: Gatwick experiences the second largest reduction in real passenger revenues between 2019 and 2020, second only to MAG. Gatwick’s annual recovery does not begin until 2022 whilst MAG’s begins in 2021. One factor contributing to this earlier apparent bounce back for MAG earlier is the CY vs. FY reporting issue noted throughout this report. By not including the higher traffic volumes of the first three months of 2022, Gatwick’s revenue recovery is not reflected until CY2022. MAG’s, however, occurs from FY2021 because it does include this period.

Total Revenue per passenger: This metric has limited usefulness for the COVID period. Generally total revenue per passenger rose in 2020 and/or 2021 depending on reporting year impacts. While revenue declined and subsequently recovered at all airports, the radically reduced flights and more variable load factors through the COVID travel restrictions flowed through to an inverse pattern compared to absolute total revenues when shown on a per passenger basis.

Figure 38: Total Airport Revenues per passenger in real 2019 prices at benchmark airports, 2019-22⁶³



⁶³ Source: Airport financial statements, PA Analysis.

Figure 39: Aviation Revenues at benchmark airports as per financial statements, 2019-22⁶⁴

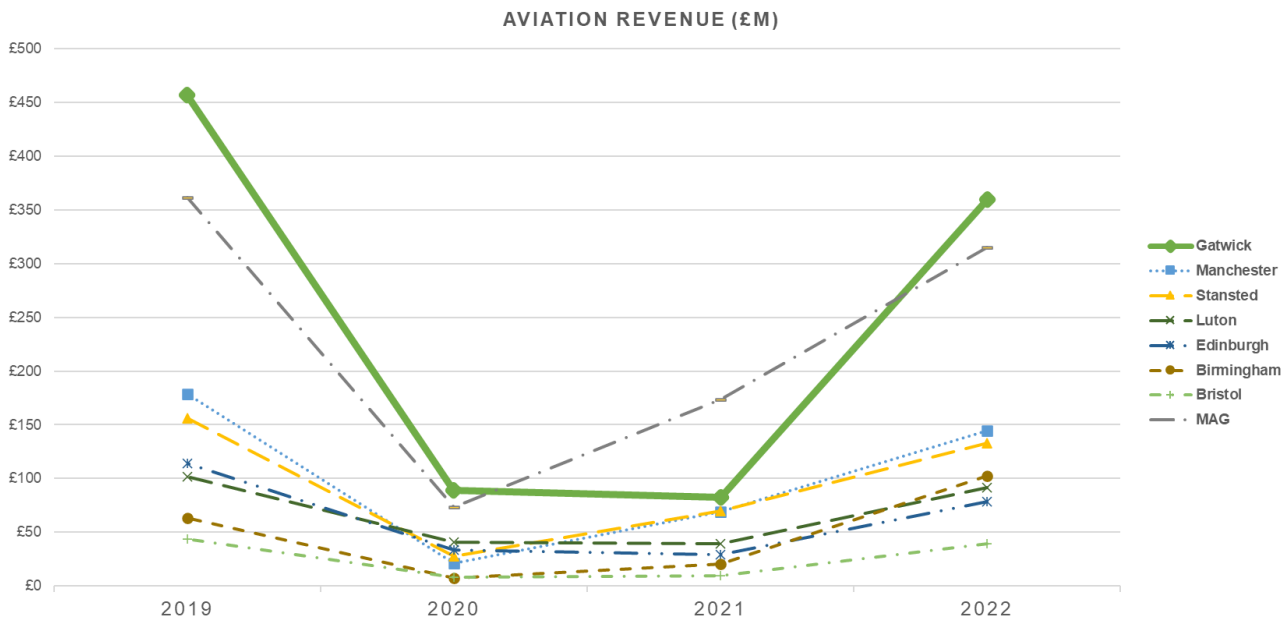
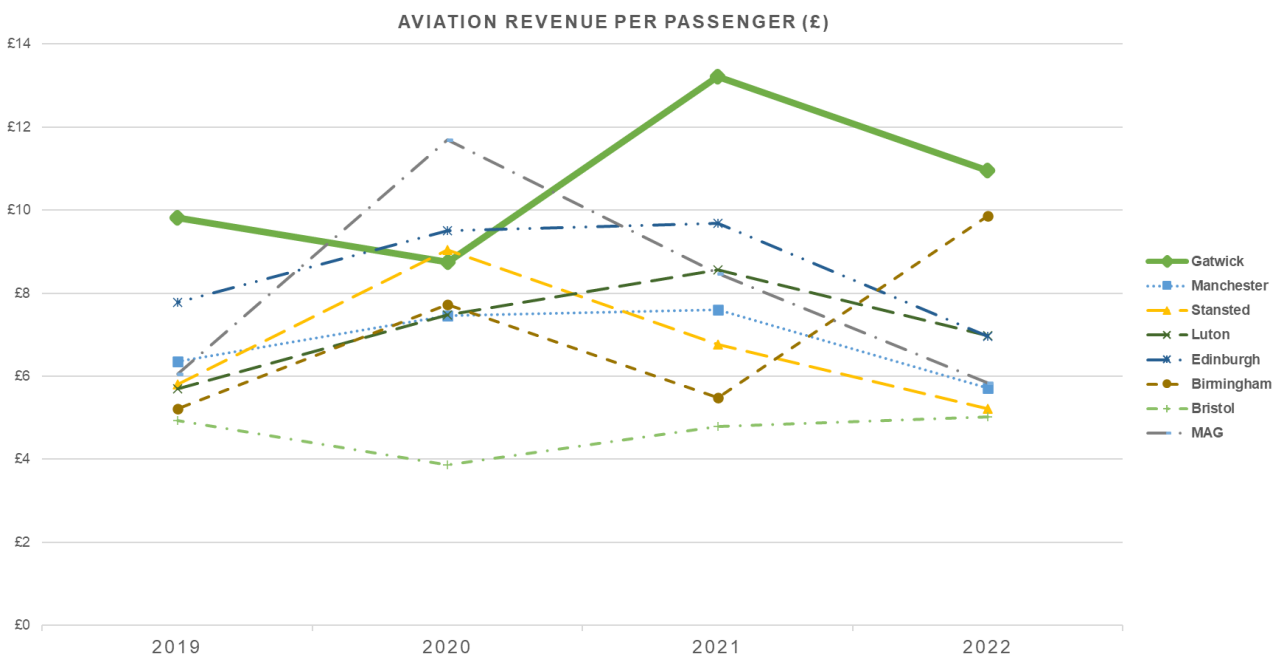


Figure 40: Aviation Revenues per passenger at 2019 prices at benchmark airports, 2019-22⁶⁵



⁶⁴ Source: Airport financial statements, PA Analysis.

⁶⁵ Source: Airport financial statements, PA Analysis.

Figure 41: Commercial Revenues at benchmark airports as per financial statements, 2019-22⁶⁶

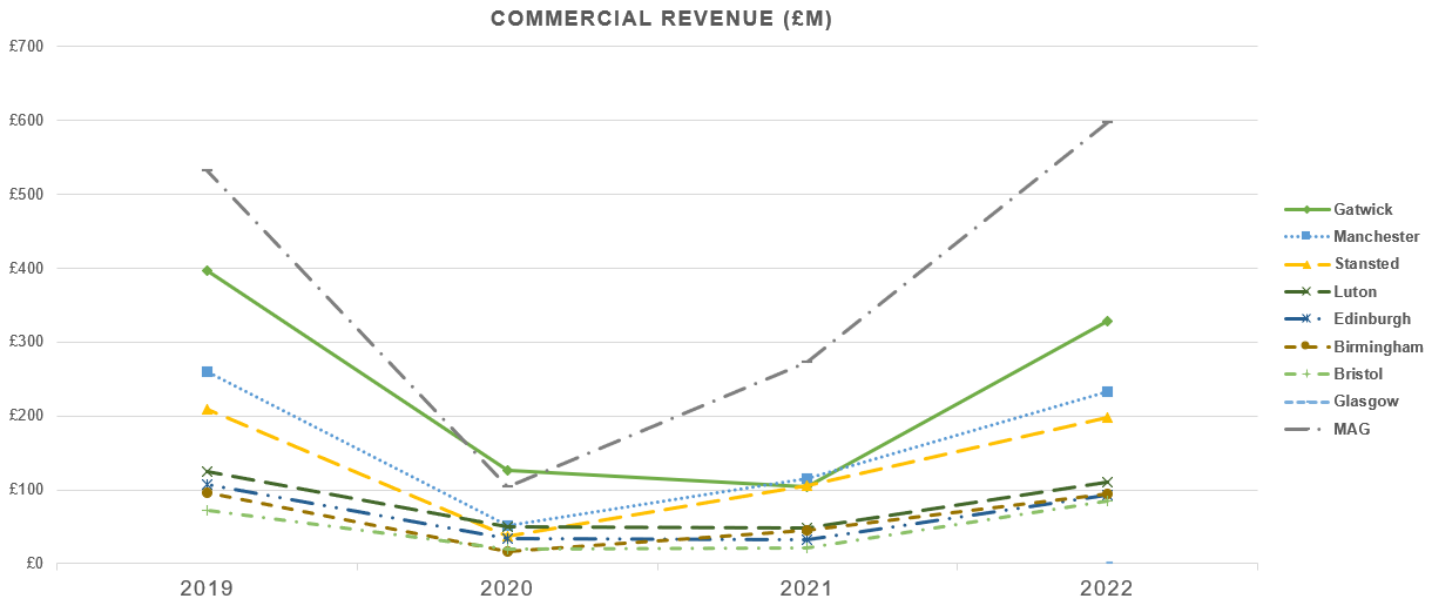
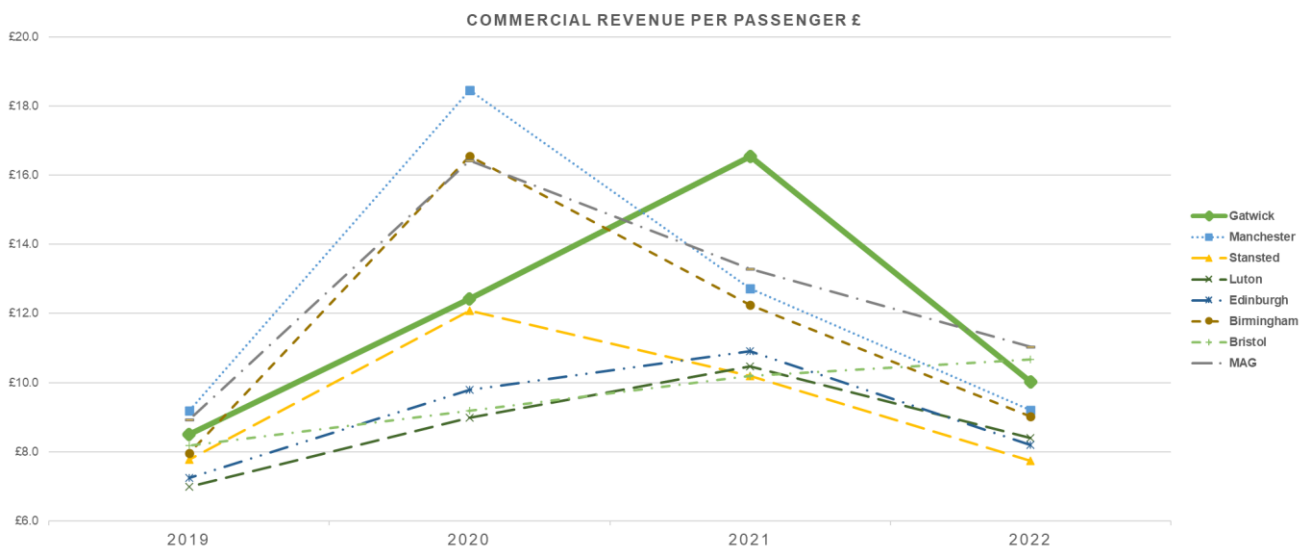


Figure 42: Commercial Revenues per passenger at 2019 prices at benchmark airports, 2019-22⁶⁷



⁶⁶ Source: Airport financial statements, PA Analysis.

⁶⁷ Source: Airport financial statements, PA Analysis.

Figure 43: Total Expenditure at benchmark airports 2019 prices, 2019-22⁶⁸

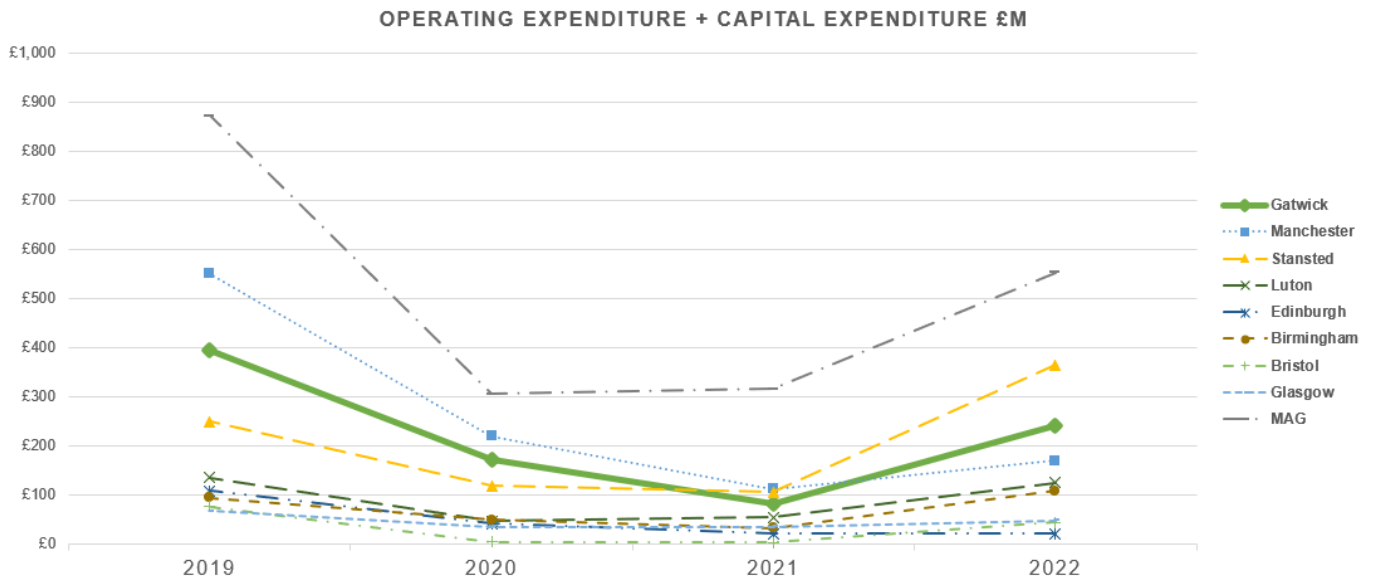
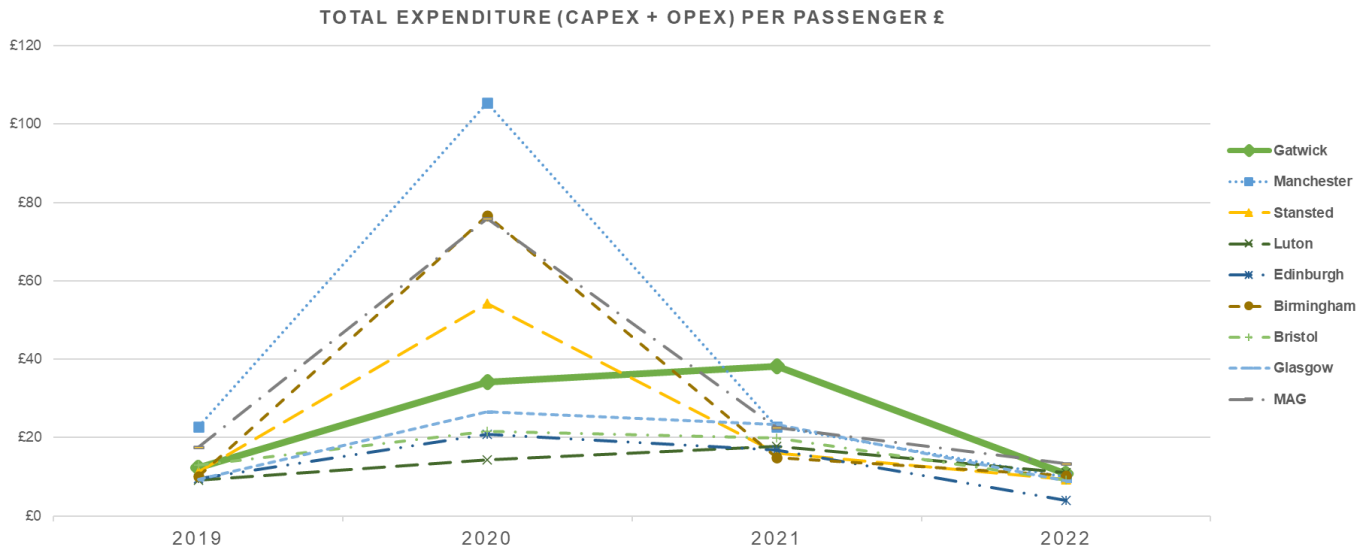


Figure 44: Total Expenditure per passenger at 2019 prices at benchmark airports, 2019-22⁶⁹



⁶⁸ Source: Airport financial statements, PA Analysis.

⁶⁹ Source: Airport financial statements, PA Analysis.

Figure 45: Annual Capital Expenditure at benchmark airports as per financial statements, 2019-22⁷⁰

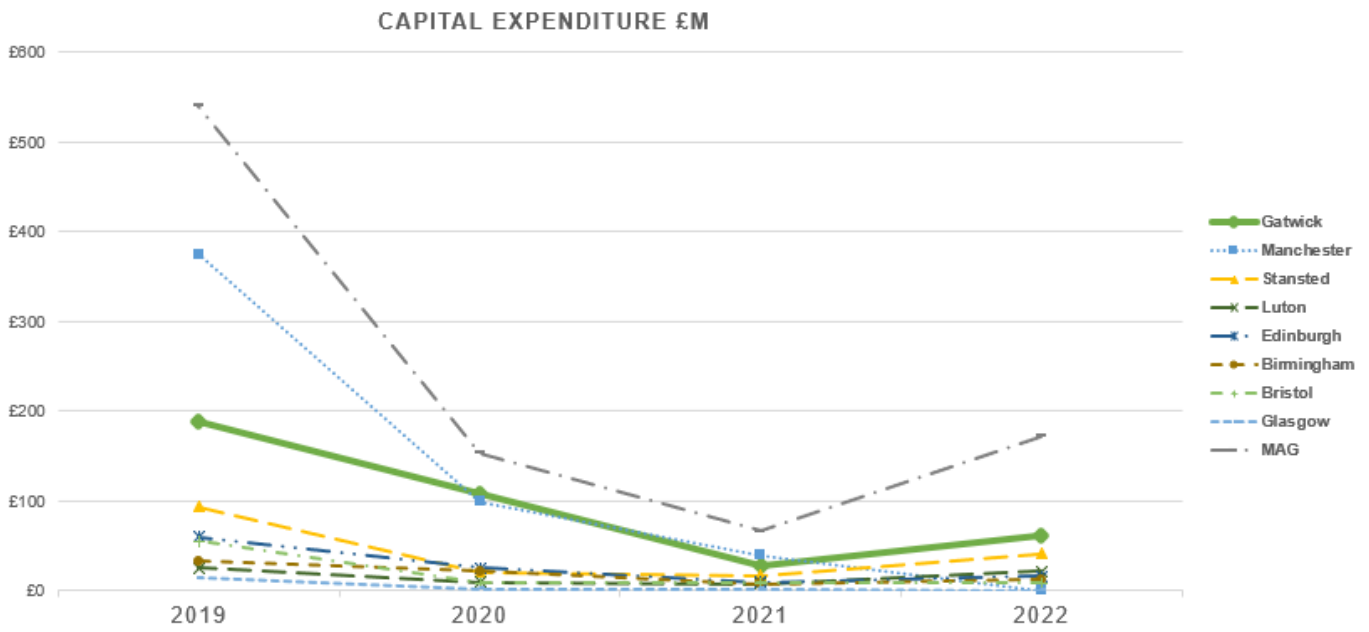
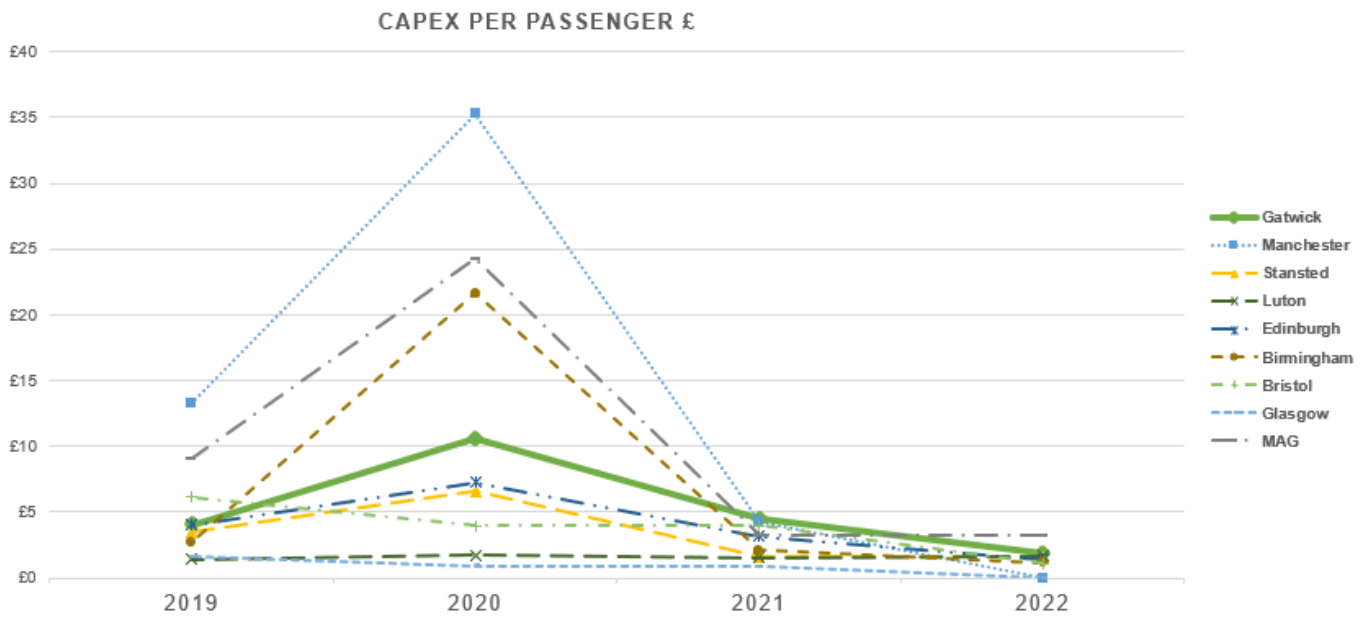


Figure 46: Capital Expenditure per passenger at 2019 prices at benchmark airports, 2019-22⁷¹



⁷⁰ Source: Airport financial statements, PA Analysis.

⁷¹ Source: Airport financial statements, PA Analysis.

Figure 47: Adjusted Operating Expenditure at benchmark airports as per financial statements, 2019-22⁷²

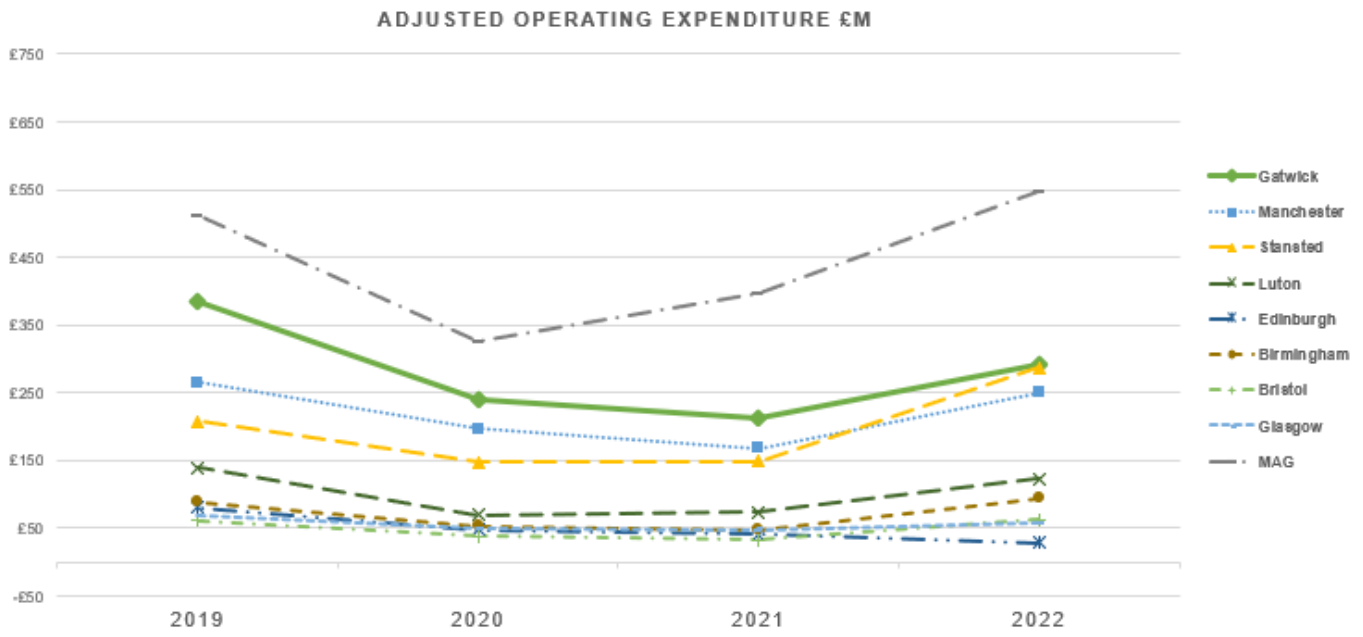
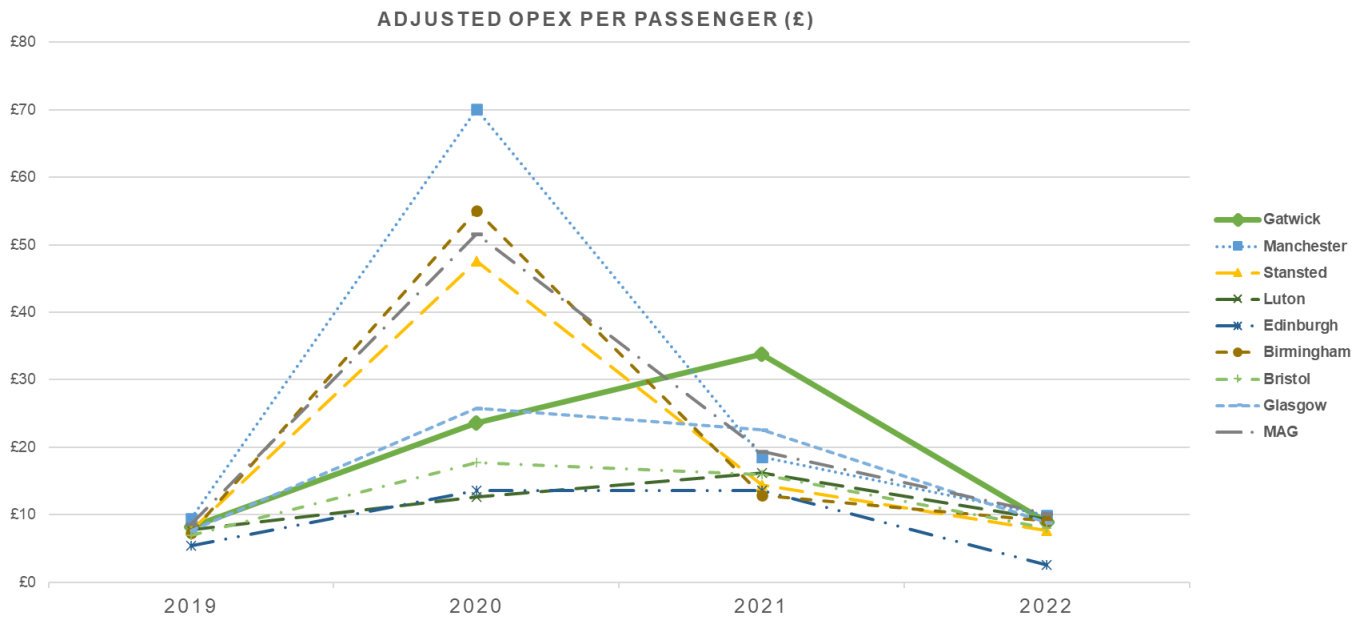


Figure 48: Adjusted Operating Expenditure per passenger at 2019 prices at benchmark airports, 2019-22⁷³



⁷² Source: Airport financial statements, PA Analysis.

⁷³ Source: Airport financial statements, PA Analysis.

5 Appendix

5.1 Treatment of Exceptional Items

Exceptional items are typically identified in financial statements and can sometimes materially impact margin or return metrics. To ensure comparability, we have identified and, in some cases, adjusted for these items.

It should be noted that exceptional items are identified as 'exceptional' based on management judgement, and one airport's management may judge items in different ways. We have not sought to define exceptional items in of themselves and not all 'exceptional items' have necessarily been adjusted out of the operating profit, if for example they did not impact operating profit to begin with.

As a reminder, the exclusion of exceptional items impacts and applies to EBITDA, Adjusted Operating Profit (and therefore 'Return' measures as well), revenue or operating costs (in limited instances as appropriate), but not net profit. See also the definitions of metrics in Table 10 in the Appendix.

Exceptional items that are identified generally fall into one of four categories:

- Impairments to Fixed Assets
- Restructuring Costs
- Pension scheme revaluations
- Corona Virus Job Retention Scheme

Whilst explicitly **not** an exceptional item, it is also worth noting the treatment of investment property revaluations here to avoid giving the impression that they have either been included in the metrics, or that they have been treated as exceptional. These items have been removed from the analysis because they are unrealised, non-cash, and unrelated to the operations and operating performance of the airports in the sample. Therefore, whilst both the exceptional items and investment property revaluations have been removed from this report's metrics, the rationale behind these decisions differ slightly.

Below are each airport's top exceptional items (as identified by management) that may have been adjusted (see subsequent table) as appropriate to provide some detail on what the exceptional items consist of.

Table 6 below sets out our treatment of the most significant exceptional items.

This table also excludes CJRTS which is dealt with separately in Table 8.

Table 6: Key exceptional items for benchmark airports

#	Airport	Year	Amount	Description
1	Gatwick	2022	£111m	In 2022, there is an exceptional derecognition of financial liability £111m. This impacts net profitability (but not operating profit or therefore our definition of return) and effectively increases the net assets (through reducing liabilities). It is not a revenue.
2	Gatwick	2022	£30.5m	There is an amount of £30.5m disclosed as exceptional costs this is a non-cash impairment on Assets in the course of construction. A number of projects were put on hold during the COVID period and then restarted at a later date. This has been adjusted from operating profit as an identified exceptional item.
3	Gatwick	2020	£42.5m	The majority of the exceptional costs related to reorganisation costs (£39.5m) that have been recognised as an exceptional cost by management. The cost has been excluded from operating profit (and therefore return) in our analysis but does impact net profitability.
4	Luton	2021/22	£8.1m	Luton appears to have received a reduction in the concessionary fee. In the accounting statements this is approximately £3.9m and £4.2m respectively. These values have been removed as exceptional cost reductions to ensure the EBITDA and OPM metrics are consistent and comparable. The resulting values are also the values that management recognise as the relevant EBITDA per their financial disclosures.
5	Glasgow	2020	£3.7m	2020 – Exceptional costs relate mainly to restructuring and were adjusted from both EBITDA and operating profit.
6	Glasgow	2016	£8m	Glasgow had a one-off pension credit to accounts of £8m, included as an exceptional and removed from operating profit metrics (disclosed as ‘non-recurring’) in principle this is exceptional and is normalised and were adjusted from both EBITDA and operating profit.
7	Glasgow	2019	£5.5m	Glasgow received a one-off Income related payment from a windfarm totalling £5.5m, this has been split from the main turnover as it is not primary trading activity related and a non-recurrent income in nature. It has been excluded from Revenue ‘Other’. Note – not clear on face of financial overview as does not cast down).
8	Stansted	2012	£30.7m	In the 12 months to 31 March 2012, Stansted includes £30.7m exceptional charge related to Pension liabilities, which impacts operating profit. For comparability, the report adds back this exceptional item back to operating profit.
9	Bristol	2021	£13.3m	In 2021, it is noted that the change in corporation tax caused a deferred tax charge based on the effective corporation tax change. In Bristol’s case, £13.3m that impacts the Net Profit Margin calculation. This, however, only impacts net profit and is appropriate to do so.
10	Manchester	2021	£9m	Dividend income of £9m was received in 2021 and relates to clearing down inter-company balances. It is only impacting appropriately Net Profit Margin and is not included in the operating profit measure. Therefore, only impacts Net Profit and is appropriate to do so.
11	Manchester	2011/12	£17.9m	Accounts show significant items mainly consisting of £13.7m related to an intercompany receivable impairment, with remaining £4.2m in that year related to restructuring costs. This

				item is included in the Net Profit Margin metric only and was not included in the operating profit measure.
12	MAG	2020/21	£39.3m	Discontinued operations in 2021, a loss of £39.3m that impacts the net profit position of the group. This was related to a sales process for a non-core property portfolio during the year 31 March 2020, which completed 7 August 2020. This item is included in the Net Profit Margin metric only and was not included in the Operating Profit measure.

The table below illustrates the impact of above noted exceptional items after making the adjustments for the purposes of the profitability metrics. The profitability metrics that remain impacted after adjusting or excluding the individual exceptional items are marked with an 'Included'.

The impacted profitability metrics by making the adjusting or exclusions to each of the respective items above are marked with an 'Excluded'.

Table 7: Key exceptional items profitability metrics impact table

#	EBITDA Margin	Operating Profit Margin	Net Profit Margin
1		Excluded	Included
2		Excluded	Included
3		Excluded	Included
4	Excluded	Excluded	Included
5	Excluded	Excluded	Included
6	Excluded	Excluded	Included
7		Excluded	Included
8		Excluded	Included
9			Included
10			Included
11		Excluded	Included
12		Excluded	Included

5.2 Treatment of Coronavirus Job Retention Scheme Incomes

For Coronavirus Job Retention Scheme Incomes (CJRS), note that whilst they are often described as exceptional, they are correctly recognised as part of operating costs (and therefore as part of operating profit) during this period since they are re-imbursing costs that are being incurred (i.e., a net nil impact to operating expenditure). For these items only, we have not adjusted as an exceptional item, and are generally recognised against the Operating Costs. This approach ensures that maximum comparability to trading activities and associated Operating Costs.

Table 8: Summary treatment and impact of Coronavirus Job Retention Scheme (CJRS)

#	Airport	Year	Amount	Description
1	Birmingham	2020 and 2021	£20m	There are exceptional costs of £20m in total over the two years related to the Coronavirus job retention scheme (furlough). This has been included against the view of Operating Costs since the income received is reimbursing costs. It is separately disclosed in the accounts as an income against operating costs. This does impact Net Profit and Returns metrics (e.g., ROCE), but does not impact revenue as it is not real revenue and not linked to Passenger Numbers or flights and so has been excluded when considering Revenues.
2	Luton	2020	£10.6m	CJRTS included £10.6m. Luton included as part as an Other Operating Income on face of I&E – this has been combined with Operating costs as will net off the associated staff costs. It therefore impacts our net profitability measure appropriately by including.
3	Edinburgh	2020, 2021 and 2022	£12.5m	CJRTS – Grant Income was recorded of £7.1m in 2020 and £3.2m in 2021. It therefore impacts our net profitability measure (appropriately by including) but has been excluded from our Revenue measures. Other Grant Income of £2m received no other details.
4	Stansted	2020	£21m	Stansted received £21m in CJRTS government grant income. This was included as part of Operating costs (as a credit) on the face of the financial statements.
5	Bristol	2021	£6.5m	CJRTS / Airport Ground operators support related exceptional item totalling £6.5m, recognised as other operating income and included as against operating costs.
6	Manchester	2021	£21m	In 2021, they received Other Income (that we have netted against operating costs) for analysis purposes totalling £21m – consisting of CRJS and Airport Groundworkers Support Scheme of £9m and £8m respectively.
7	Gatwick	2020 and 2021	£41.8m	CJRTS listed as a component of wages and salaries and recognised correctly against operating costs in the accounts.

5.3 Revenue Classifications used for Aviation and Commercial Revenues

Airports differ in how they group and report their various business activities and revenue streams. The following table summarises the accounts classifications for each airport in the benchmark group and how these have been aligned to the Aviation and Commercial Revenues analysed as part of the contextual metrics.

Table 9: Revenue classifications for benchmark airports⁷⁴

Airport	Accounts classification	Reports Analytical classification
Birmingham	Aeronautical income	Aviation Revenue
Birmingham	Concessions income	Commercial Revenue
Birmingham	Property income and recharges	Commercial Revenue
Gatwick	Airport and other traffic charges	Aviation Revenue
Gatwick	Retail	Commercial Revenue
Gatwick	Car parking	Commercial Revenue
Gatwick	Property income	Commercial Revenue
Gatwick	Operational facilities and utilities income	Commercial Revenue
Gatwick	Other	Commercial Revenue
Luton	Traffic income	Aviation Revenue
Luton	Commercial income	Commercial Revenue
Luton	Tenant income	Commercial Revenue
Edinburgh	Aeronautical	Aviation Revenue
Edinburgh	Retail	Commercial Revenue
Edinburgh	Operational facilities and utilities	Commercial Revenue
Edinburgh	Property rental	Commercial Revenue
Edinburgh	Other	Commercial Revenue
Glasgow	Not disclosed in accounts after 2016	N/A
Stansted	Aviation	Aviation Revenue
Stansted	Retail concessions	Commercial Revenue
Stansted	Car parking	Commercial Revenue
Stansted	Property and property related	Commercial Revenue
Stansted	Other income	Commercial Revenue
Manchester	Aviation	Aviation Revenue
Manchester	Retail concessions	Commercial Revenue
Manchester	Car parking	Commercial Revenue
Manchester	Property and property related	Commercial Revenue
Manchester	Other	Commercial Revenue
Bristol	Aeronautical	Aviation Revenue
Bristol	Car park	Commercial Revenue
Bristol	Concession	Commercial Revenue
Bristol	Other	Commercial Revenue
MAG	Aviation income	Aviation Revenue
MAG	Retail concessions	Commercial Revenue
MAG	Car parking	Commercial Revenue
MAG	Property and property related income	Commercial Revenue
MAG	Other	Commercial Revenue

⁷⁴ Source: Airport financial statements, PA Analysis.

5.4 Detailed Metric Definitions and Notes

The following table provides further details on each of the key metrics used in this report.

Table 10: Detailed metric / measure definitions for benchmark airports

Measure and Formula	Detailed Description	Notes
Profitability metrics		
EBITDA Margin (EM) $EM (\%) = EBITDA / Total\ Revenue$	<p>This metric excludes exceptional items, revaluations, depreciation and amortisation, interest and taxation. This metric will reflect a clear view of marginal profitability before any technical adjustments and financing costs.</p>	<p>Often operating profit is reported including exceptional items, depreciation, and amortisation; to ensure we measure a clear view of Gross or EBITDA margin % this report excludes these items in calculating EBITDA.</p>
Adjusted Operating Profit Margin (OPM) $OPM (\%) = \text{Adjusted Operating Profit less Exceptional items} / Total\ Revenue$	<p>This metric uses an adjusted reported operating profit figure that excludes the impact of exceptional items, and before any revaluations and financing costs (e.g., interest). It will include depreciation and amortisation costs. This metric will reflect a clear view of operating profitability, after allowing for depreciation and amortisation costs, but before taxation. Sometimes referred to as EBIT, except with exceptional items unrelated to operating performance adjusted in this case.</p>	<p>Operating profit will sometimes include exceptional items that need removing from this definition. depreciation and amortisation is included if it has been excluded. This measure is useful for assessing profitability after accounting for the theoretical cost of asset replacement (or capital asset maintenance levels) over a longer period. A weakness is that this does not however consider that asset bases across airports will be different. For example, assets will be accounted for under different useful life bases, which in turn, are subject to judgements applied by management for different classes of assets.</p>
Net Profit Margin (NPM) $NPM (\%) = Net\ Profit / Total\ Revenue$	<p>This metric uses the net profit (or bottom-line) figure which will include all exceptional items, revaluations, and financing costs (e.g., interest) and taxation. This metric will reflect a view of overall profitability, after any in-year technical adjustments or exceptions and could be considered an 'un-normalised' view of profitability after financing costs and arrangements, and after taxation.</p>	<p>The metric will include any financing costs associated within any corporate financing and company structure, including related party financing arrangements. It will also include revaluations that are periodically undertaken on different asset classes, and sometimes on a different basis (e.g., direct cost replacement or economic fair value in use). Exceptional items could also undermine this metric overall.</p>
Return metrics		
Return on Capital Employed (ROCE) $ROCE = \text{Adjusted Operating Profit} / (\text{Total Assets} - \text{current liabilities})$	<p>'Return' in this context has been defined as the Adjusted Operating Profit Margin (OPM), and excludes exceptional items, revaluations, and financing costs (like EBIT, but adding back exceptional items</p>	<p>Specifically focuses on the efficient use of assets, and is appropriate for more geared, and / or capital-intensive industries. This includes all items that an airport deems non-current liabilities; including but not</p>

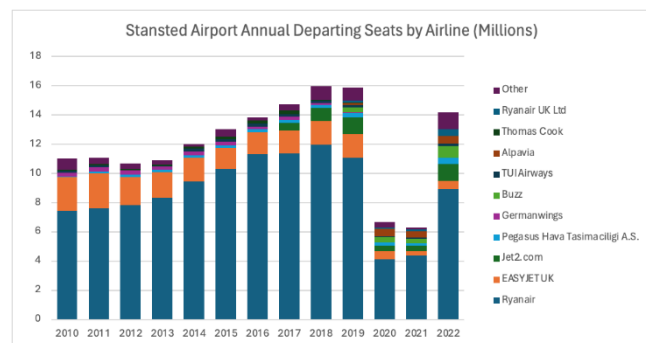
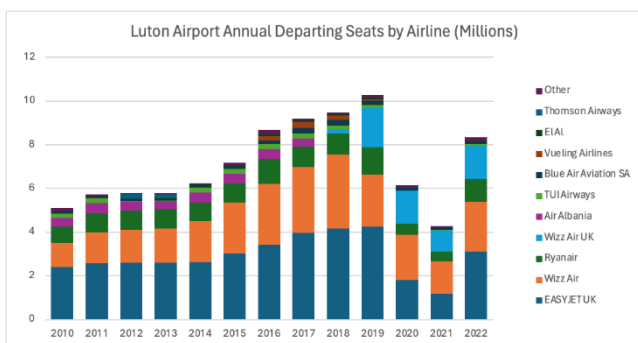
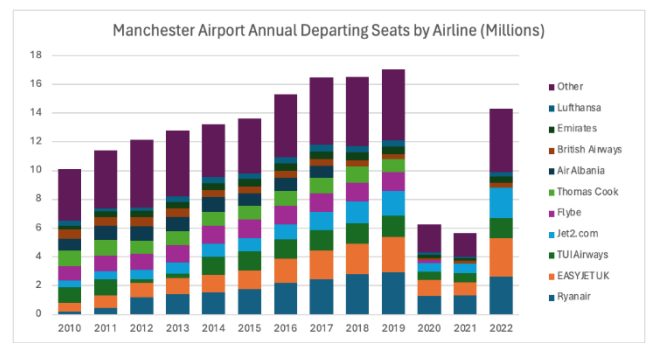
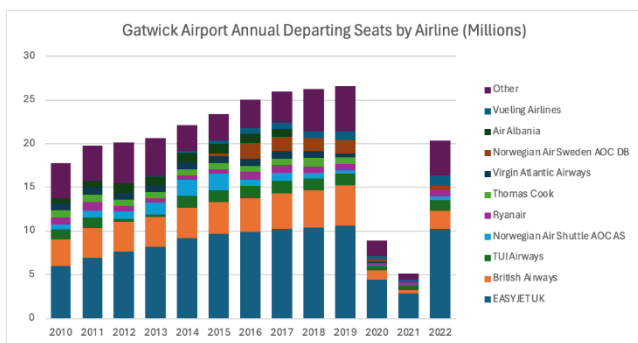
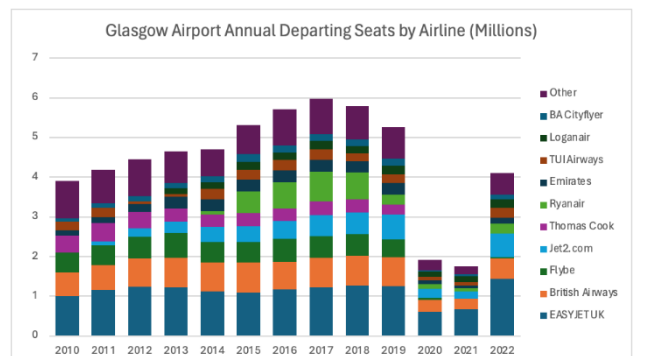
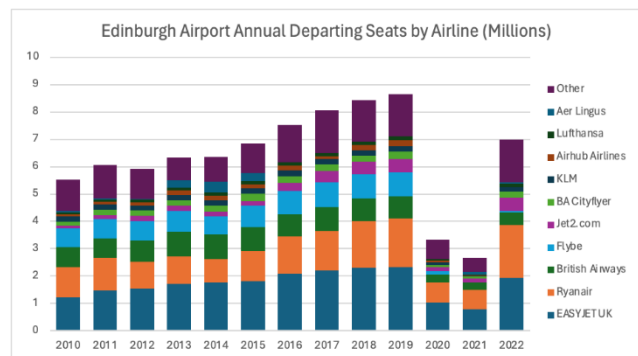
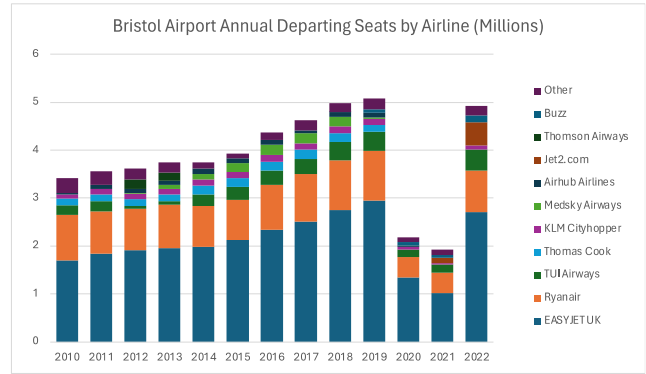
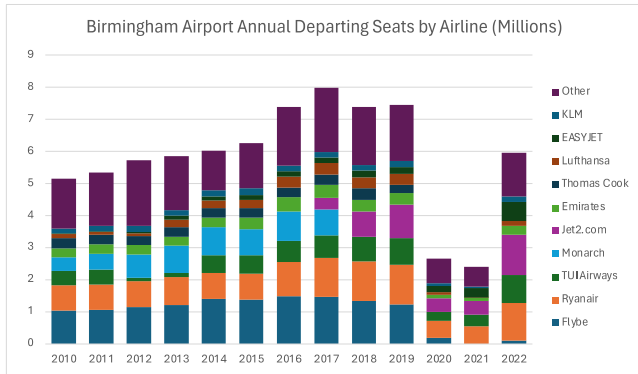
	where necessary). Capital employed represents all capital that is part of the business typically defined as total assets less current liabilities. (See OPM definition).	limited to non-current borrowings, lease liabilities and deferred tax.
Return on Fixed Assets ROFA = Adjusted Operating Profit Margin / Total Fixed Assets	'Return' in this context has been defined as an Adjusted Operating profit margin, and excludes exceptional items, revaluations, and financing costs (like EBIT, but adding back exceptional items where necessary). Fixed assets refer to total fixed assets as per the balance sheet, including intangibles which are largely immaterial in the context of this measure (except Bristol - which we can adjust for). Note also that the 'Return' as defined will have accounted for depreciation charges on the fixed asset base, and therefore provide a true view of return on all fixed assets, after (in theory) effective asset replacement costs. (See OPM definition).	Fixed Assets are generally tangible in nature. A weakness is that this does not however consider how fixed asset bases might differ across airports and will be accounted for under different useful life bases; subject to those estimates applied by management for different classes of assets. It may also include investment class items that are specifically held for a future gain, which would not be captured in the Return side of this equation as it has been defined. These items are not typically considered part of profit, and generally considered part of the significant changes in fixed assets will need to be understood in this context.
Return on Tangible Fixed Assets ROFA-I = Adjusted Operating Profit Margin / (Total Fixed Assets less intangible Fixed Assets)	As above excluding intangible items.	As above excluding intangible items.
Contextual metrics		
Passenger Numbers	This will be passenger numbers as aligned to the years accounting related to that year. i.e., to ensure that we are comparing the right financials to the right passenger numbers, avoiding seasonality.	Where it is not possible to utilise passenger numbers, we will take the monthly passenger numbers from the CAA, for the relevant months and airport and calculate the passenger numbers.
Aviation Revenue	Aviation Revenue OR Airport and other traffic charges as defined in the respective accounts.	This we regard as the primary revenue linked to the airport's main trading activity of aircraft movement. I.e., a clear link to ATMs and passenger numbers. This will give a clearer view of the revenue generation from primary activities and ignores the structural differences that may generate other revenues (e.g., specific car parking facilities or retail commercial agreements).
Commercial Revenue	Retail, Car Parking, Property, and other incomes.	In principle, this is all other Revenue that has been generated by the Airports, that is not aviation charges related. This will give a clearer view

		on the incomes received other and above primary trading activity of aircraft and passenger movements. This will therefore reflect some structural differences between airports (e.g., bigger car parks, or retail commercial agreements).
Operating Expenditure Opex (Absolute) & Opex / Total Passengers	Operating Expenditure in this context is defined as an Adjusted Operating Cost to exclude exceptional items, and before any revaluations and financing costs (e.g., interest) - a 'normalised' approach. Operating Expenditure will exclude depreciation and amortisation, in line with economic regulatory approaches.	This measure ensures that we utilise an Operating Expenditure that is 'normalised' for items that are not deemed a driver of the operating costs themselves e.g., exceptional, revaluations etc. This should make the value more comparable between airports and against non-financial information such as ATMs or passengers.
Capital Expenditure Capex (Absolute) & Capex / Total Passengers	Total Capital Expenditure is defined as Fixed Asset Additions (will ignore impairments and revaluations).	There are a number of Capital Expenditure numbers that could be taken from the accounts with slightly different implications. We have chosen to take the Fixed Asset Additions from the Fixed Asset notes as disclosed as the closest actual Capital Expenditure figure. This is to ensure consistency in the analysis.

5.5 Airline Capacity Summary at Benchmark Airports 2010-2022

The following charts have been prepared for each airport to illustrate the evolving trends and key airline drivers for the passenger growth experienced during the benchmark period. The metric is annual departing seats from each airport.

Table 11: Annual Departing Seats by Airline at benchmark airports, 2010-2022⁷⁵



⁷⁵ Source: Cirium SRS and PA Analysis.



About PA.

We believe in the power of ingenuity to build a positive human future.

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