

Economic impact of duty free and travel retail in Europe

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Summary

- Duty free and travel retail, involving the sale of goods to international travellers, has become a hugely successful worldwide industry since the first shop opened in Shannon airport Ireland in 1947.
- Airports represent the majority of travel retail globally but duty free and travel retail is also found on board airlines, cruise ships and ferries, at some international railway stations and in some land border shops. It can also include downtown stores where proof of travel is required to purchase.
- In Europe, duty free and travel retail has become a key component of aviation and maritime financing as well as an integral part of the travelling experience.
- Creating that alternative source of income for airports was the rationale behind the creation of duty free - that need is as great now as it was in 1947.
- The financing of airports relies upon two broad revenue streams: aeronautical revenues from airlines and passengers (usually paid via airlines), for aircraft movements and passenger processing, and commercial revenues from other activities at the airport.
- Commercial revenues are a major element of airport revenues in Europe, and duty free and travel retail revenues are usually the most important source of income.
- This discretionary activity, driven by customer choice and enabled by commercial innovation, generated revenues in Europe of €15.4 billion in 2014, of which over €10 billion was generated at airports (67%) and €1.6 billion in the maritime sector (11%). This in effect represents a voluntary contribution to financing of aviation and maritime infrastructure.
- In the maritime sector, duty free and travel retail presents opportunities for enhancing passenger service on-board and raising significant amounts of revenue (30-60% of total revenue comes from on-board retail sales (including catering). These revenues sustain vital ferry routes, which are key to regional connectivity and economic growth.
- Within Europe in 2013, duty free and travel retail at airports, along with other in-terminal services (such as car hire and food and beverage services), generated around 107,000 jobs, some 6% of the total direct aviation-related jobs generated at or in the vicinity of airports.
- Applying this proportion to the €102 billion (around 0.8%) of European GDP directly generated by the aviation sector in 2013 suggests that the direct contribution of European airport duty free and travel retail to GDP was around €6½ billion in 2013.
- Duty free and travel retail revenues make a structurally important contribution to the financing of airports (and maritime companies) and their infrastructure in Europe. Larger airports are able to generate the highest levels of retail revenues per passenger, which effectively cover some 40-80% of their profit margins. Even smaller regional airports have a strong reliance on retail revenues, with airports handling 5-25 million passengers per year generating some 40% of their profits per passenger from duty free and travel retail activities.
- Without duty free and travel retail revenue, airports would not be able to provide the facilities and services they do. There would be significantly higher numbers of loss-making airports and/or higher levels of state subsidy. Overall, connectivity in Europe would diminish.
- As well as direct employment, European aviation also supports value-added activities and employment in the supply chains to the sector. Overall, studies estimate that this measures around 1.0% of GDP for Europe as a whole.
- The aviation sector has a much wider catalytic and social impact, by enabling companies and people to work more productively as a result of using air travel to access wider markets.
- Within Europe, estimates are that the aviation sector contributes around 3.2% of GDP through its two-way impact on other sectors (such as distribution, high value manufacturing, professional services, tourism) which are reliant on air travel and which in turn create a demand for air connectivity. This is in addition to its direct and indirect impact on jobs and output from the activity in the aviation sector and its supply chain.
- Duty free and travel retail revenues therefore provide valuable support to the aviation and maritime industries. These revenues however are under pressure, in part due to airline policies and regulations that are more appropriate to domestic markets, and in part by the rise of online shopping. This will almost certainly have an impact on the future financing of airports and ferry routes.
- In Europe, duty free and travel retail revenues have grown robustly at 4% on average each year in the decade to 2014. However, most recently, revenues at European airports have actually declined (down nearly 3% per passenger each year from 2010 to 2013) because of economic factors, new airline hand luggage rules, and the growing challenge from online retailing.
- By contrast, elsewhere in the world, growth in duty free and travel retail revenues was higher over the past decade, at 9% per annum, as a result of a catch up effect in the less mature markets in Asia and the Middle East and faster overall regional economic growth.
- It is important for Governments, therefore, to recognise that the continued vitality of this sector is not just beneficial for passengers' travel experience or airports' profits in isolation, but also underpins the provision of vital transport infrastructure across Europe.

- The financing role of duty free and travel retail will be vital as Europe addresses its growing challenge of supplying adequate airport capacity to meet demand in the coming decades.
- Governments should therefore seek to encourage duty free & travel retail, and be cautious about potentially damaging new regulations. Such a policy approach must entail the cost/benefit analysis of regulatory changes, not only against their impact on duty free and travel retail directly, but also the potential effect on transport financing and connectivity.
- Governments should also recognise the unique character of the duty free and travel retail channel, which involves selling to people who more often than not will be consuming their purchases in many and disparate countries. Applying national-level regulations may therefore be neither relevant nor proportionate to achieving consumer protection goals.

1 Introduction

Duty free and travel retail provides a service that passengers value, enhancing their experience as they travel. It generates value adding economic activity and employment which contributes to overall GDP. Moreover, it plays an important role in the financing of airports and of shipping lines, and thereby of the aviation and maritime industries as a whole.

This in turn supports the wider economy: generating jobs and value added in aviation and the maritime sector and their supply chains, and enhancing the growth potential of many other sectors. This report explains the nature and scale of duty free and travel retail's economic contribution, and its role in supporting the aviation and maritime industries.

Travel retail - definition

Duty free and travel retail is a global industry selling goods to international travellers. Sales in duty free shops are exempt from the payment of certain local or national taxes and excise duties, normally with the requirement that the goods are only sold to travellers who will take them out of the country. Products that can be sold duty free vary by jurisdiction and different rules based on excise duty calculations, import allowance restrictions and other factors.

Airports represent the majority of such sales globally but duty free and travel retail is also available at border shops (under certain conditions, usually requiring the purchaser to spend a minimum amount of time outside the country), on board cruise and ferry vessels in international waters, on board aircraft during international flights, and in some countries in downtown stores where proof of travel is required to purchase.

Some jurisdictions (for example in non-EU Europe, Australasia, the Middle East and Latin America) offer travellers the opportunity to buy duty free goods on their arrival at their destination airport within the territory concerned. In such places, arrivals duty free has become an important source of revenue for airports.

In some territories, the term "travel retail" was coined to define the sale of products in a travel environment on which taxes and duties remain payable even though the customer may be travelling internationally.

This is notably the case within the European Union, where the sale of duty free goods to customers travelling within the EU was abolished in 1999. 'Travel retail' is a term that commonly refers to sales made in travel environments where customers require proof of travel to access the commercial area, but which are subject to taxes and duties. *(Definition: Duty Free World Council)*

Duty free and travel retail has evolved and grown in parallel with the development of air and sea travel within Europe over the past 65 years or so. What started as a relatively small scale activity, meeting the immediate needs of travellers, has emerged as both an important aspect of passengers' travel experience and a major financial contributor to the aviation and maritime sectors. It has done so by being a good complement to the underlying transport service, providing a useful service to passengers at moments in their journey when they have time to spare. Retailers have been able to work effectively with airports and ferry lines to encourage travellers to engage in discretionary shopping as part of their journey. This in turn has supported the growth in air and sea connectivity within Europe.

Historical origins of duty free and travel retail - Shannon Airport

Shannon Airport, on the west coast of Ireland, pioneered the concept of duty free and travel retail as it developed from the 1940s and 1950s to serve the growing trans-Atlantic airline market. In 1947, construction of terminal facilities and runways were completed and the Irish Government passed the Customs Free Airport Act by which transit and embarking passengers, goods and aircraft were exempt from normal customs procedures. Shannon Airport had become the first Customs Free Airport in the World and established Shannon as an International Industrial and Distribution Centre and stimulated further traffic growth.

The Shannon Sales and Catering Organisation was licensed by the Irish Department of Transport, enabling Shannon to conduct commercial and catering activities at the airport. In 1947, the world's first duty-free shop opened at Shannon Airport, and began as a simple kiosk measuring just a few square metres, selling souvenirs and gifts. The Duty Free shop became an immediate success and this concept has been copied worldwide.

In 1951, the first Airport Duty Free Liquor Shop was opened. It started as a ship's store where airline stewards purchased supplies for re-sale to passengers when the aircraft became airborne. The same applied to cigarettes and tobacco which began as supplies for crew only. Later, passengers were allowed to make direct purchases at tax free prices on a restricted basis and soon Shannon became famous for having the only airport duty free shop in the world. In the beginning, Shannon "Duty Free" applied only to liquor and tobacco, but it rapidly developed into a larger number of tax-free departments, which is how it remains today for Transatlantic flights.

(Source: Shannon Airport website)

Duty free and travel retail has long been recognised as a channel which is unique and distinct from the domestic retail for a number of reasons. Access to shops is restricted to people who are travelling and in possession of a boarding pass. As travellers, many consumers may not speak the local language of the shop in which they make their purchase.

Shops are often open 24/7 and provide multi-lingual staff. Food, drink and duty free tobacco products are normally intended for consumption outside of the country in which they are purchased; therefore, the final destination of the products could be anywhere in the world. Only a limited range of products are sold in duty free and travel retail shops compared to the domestic market. These are often luxury designer brands, high-value electrical goods, confectionery, spirits, perfume and tobacco.

Many goods are produced specifically for the duty free market only and cannot be found on the High Street. Many products purchased at duty free and travel retail shops are intended for gift giving, with special editions of products and promotions being supplied only to the travel retail sector.

Overall, these characteristics of duty free and travel retail create a distinctive retail offering for the traveller and one which, by meeting consumer needs, generates revenues to support European aviation and maritime transport infrastructure and services.

This report is structured as follows:

Section 2 describes global trends in the duty free and travel retail sector, to provide a context for subsequent discussion of developments in Europe¹ and the economic impact in that region.

Section 3 describes the role of duty free and travel retail within the European aviation sector.

Section 4 describes the role of duty free and travel retail within the European maritime sector.

Section 5 sets out the available evidence on the economic impact of the duty free and travel retail sector directly.

Section 6 explains how the infrastructure of the travel industry, particularly the aviation sector, has developed to meet its primary purpose while creating opportunities for ancillary activities, such as duty free and travel retail, which in turn help meet the costs of the sector as a whole.

Section 7 sets out the available evidence on the economic impact of airports and the aviation sector more generally, looking at the direct effects, the demand created in the industry supply chain, and the wider benefits to economic growth which the aviation sector stimulates.

The Annexes to the report contain case studies of individual travel retailers and airports which illustrate various aspects of the duty free and travel retail sector and its links with the development of airports. The key messages from each of these case studies are highlighted at the appropriate section in the body of the report.

¹ Europe is defined, in line with the coverage of Airports Council International (ACI) Europe, as European Union member states, plus Albania, Belarus, Bosnia & Herzegovina, Georgia, Iceland, Israel, Kosovo, the Former Yugoslav Republic of Macedonia, Moldova, Monaco, Montenegro, Norway, Russia, Serbia, Switzerland, Turkey, Ukraine.

2 Global duty free and travel retail trends and patterns

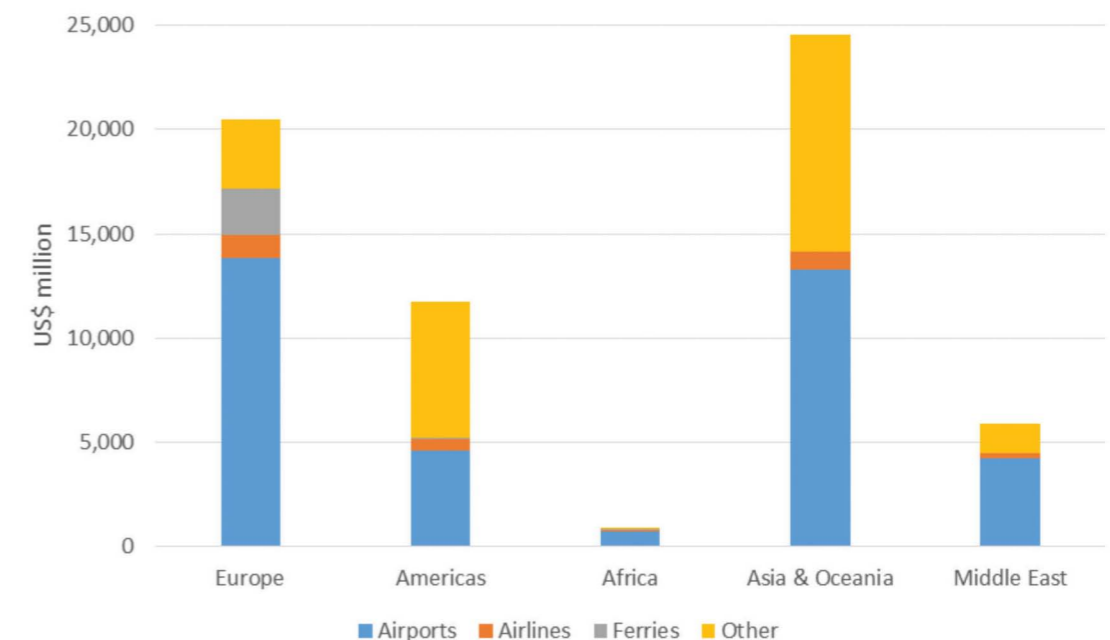
2.1 Overview

This section provides a descriptive overview of the duty free and travel retail sector, by region, by sales channel and by product group². This global picture is presented to provide context for data and analysis in the subsequent sections of this report which focus on Europe.

2.2 Duty free and travel retail definition and context

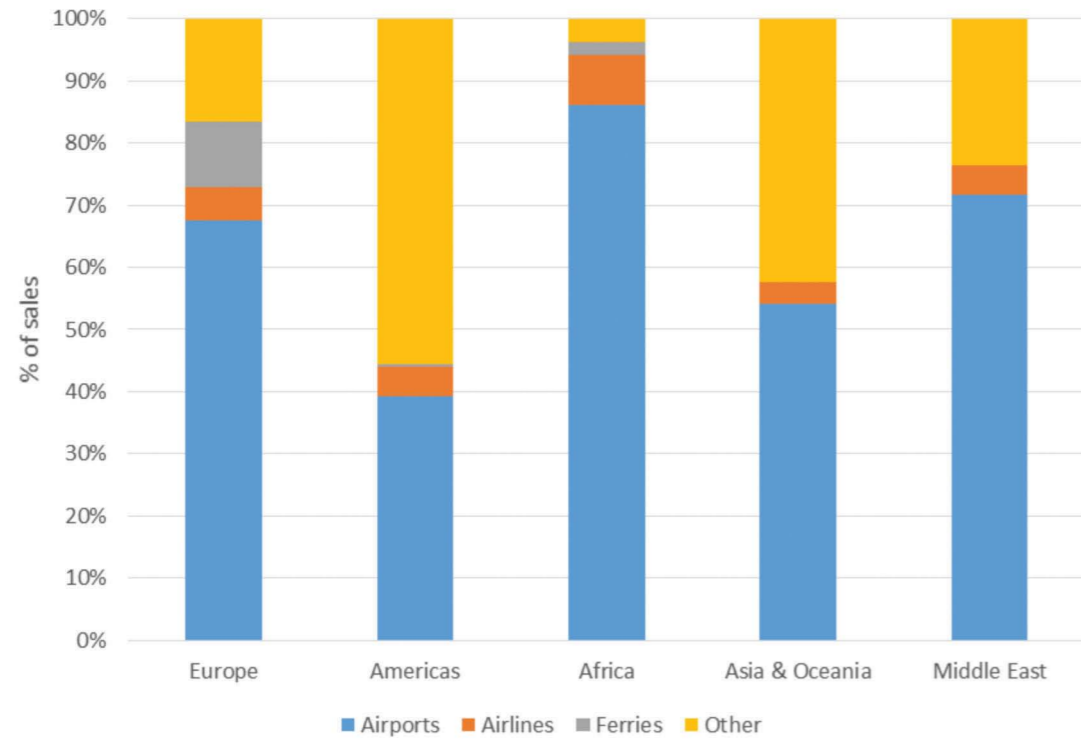
Duty free and travel retail describes the sale of goods (and to a lesser extent services) to passengers during air or sea journeys, at airports and sea ports, and when crossing land borders. While the contribution of each of these sales channels varies by region, airport duty free and travel retail is the largest channel in all regions except the Americas, as shown in Figure 1 below and Figure 2 overleaf.

Figure 1 Duty free and travel retail sales by region and sales channel, 2014



² Source: all data in this section are derived from the Generation Research travel retail database for 2013. The Other category is defined as including downtown, off-airport stores, border stores, port shops and cruise line on-shore malls, military and diplomatic sales. In Asia Pacific, where regulations are more favourable for downtown shops, "domestic duty free shops" (such as Juju Island in South Korea, Okinawa in Japan, Hainan Islands in China and Kinmen Islands, Taiwan) and off-airports shops affiliated with airport shops, Other Shops represent well over 40% of total regional duty free and travel retail sales.

Figure 2 Duty free and travel retail sales channel shares by region, 2014



2.3 Growth in duty free and travel retail

All regions have seen strong growth in sales in the recent past, with particularly strong growth in Asia & Oceania (reflecting the Chinese economy particularly) and in the Middle East (reflecting the growth in Gulf state hub airport traffic), as shown in Figure 3 and Figure 4 below. Sales in Europe and America rose over the decade to 2014, but both were set back by the economic crisis in 2009.

Sales in Asia & Oceania, by contrast, saw very rapid growth in sales from 2008 and no apparent impact from the global economic slowdown.

Middle East sales growth paused in 2009 before resuming in 2010; this region has delivered the fastest growth (15% per year) of any over the period 2000-2014, as shown in Figure 3 below, reflecting the fast growing role of Middle East airports and airlines in world aviation. In the most recent decade 2004-2014, though, Asia-Pacific's annual growth rate has been highest, at 15%.

As a result of these relative growth rates, Europe's share of the global duty free and travel retail market has declined from just under 50% in 2004 to 32% a decade later, as shown in Figure 5 below. Asia & Oceania now takes the largest share (39%), while the Middle East has risen from a 6% to 9% global share over the decade. The Americas now account for 19% of global sales.

Figure 3 Sales growth, compound annual rate, 2004-2014

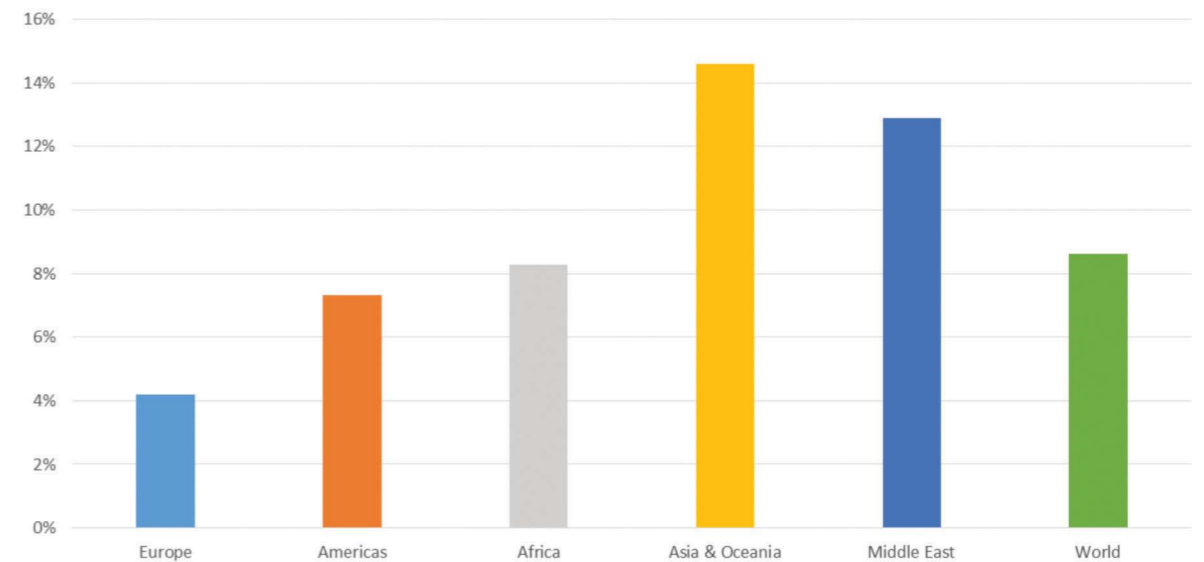


Figure 4 Duty free and travel retail sales by region, 2000-2014

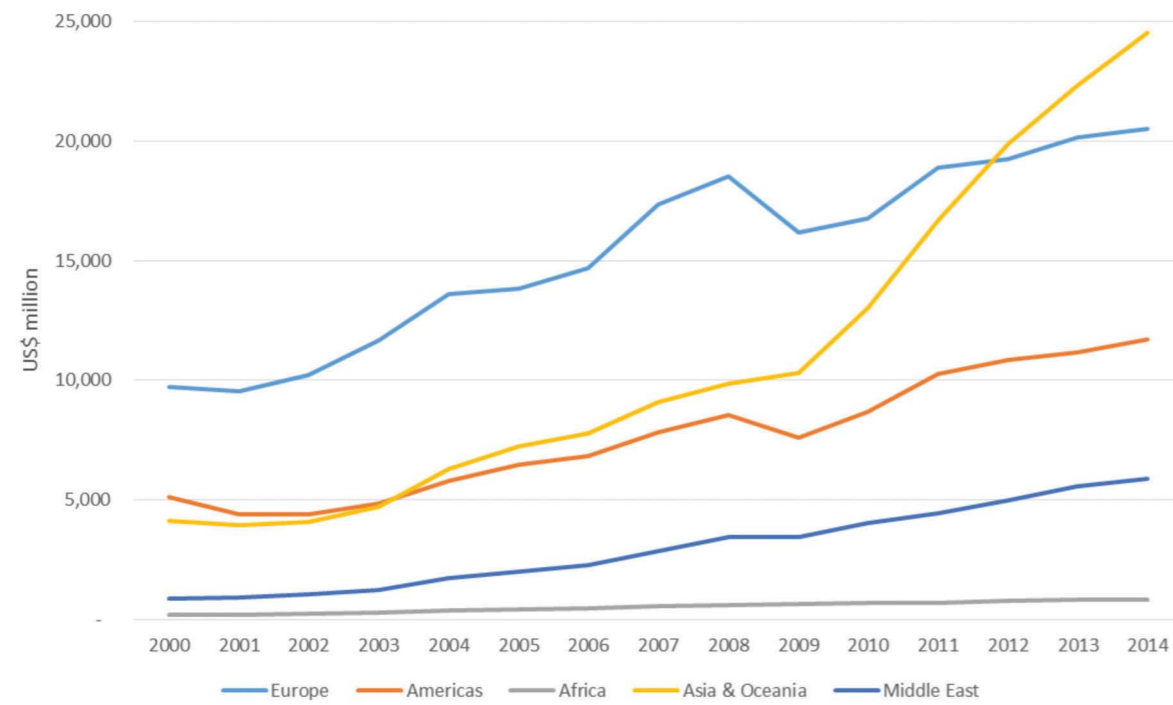
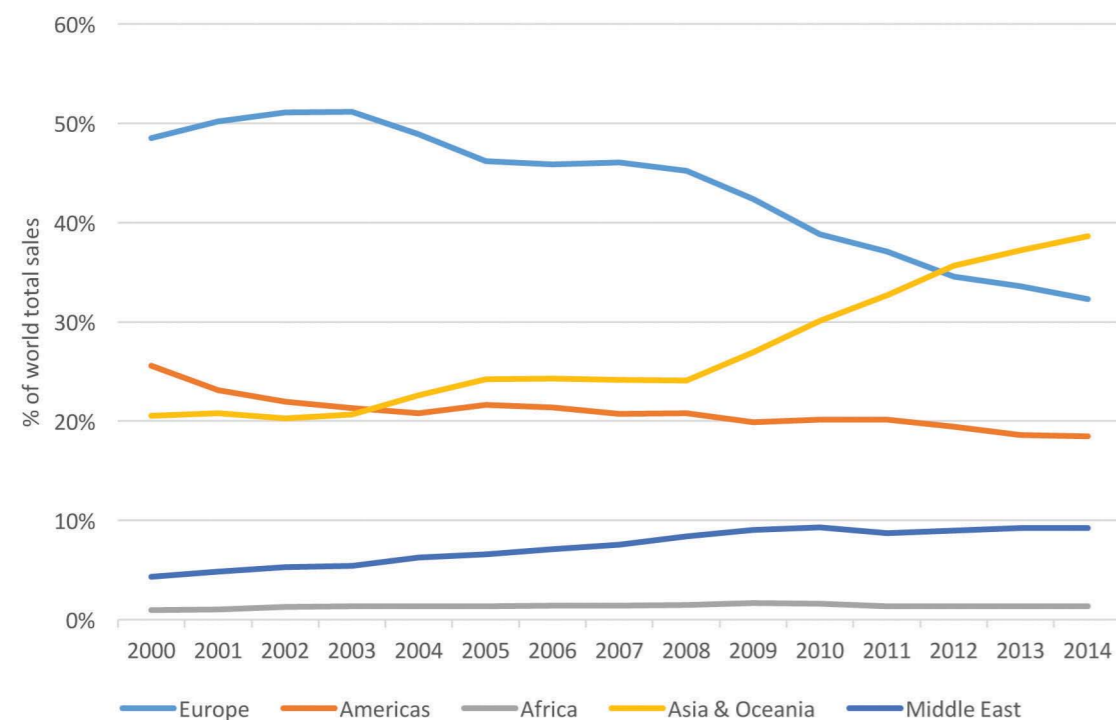


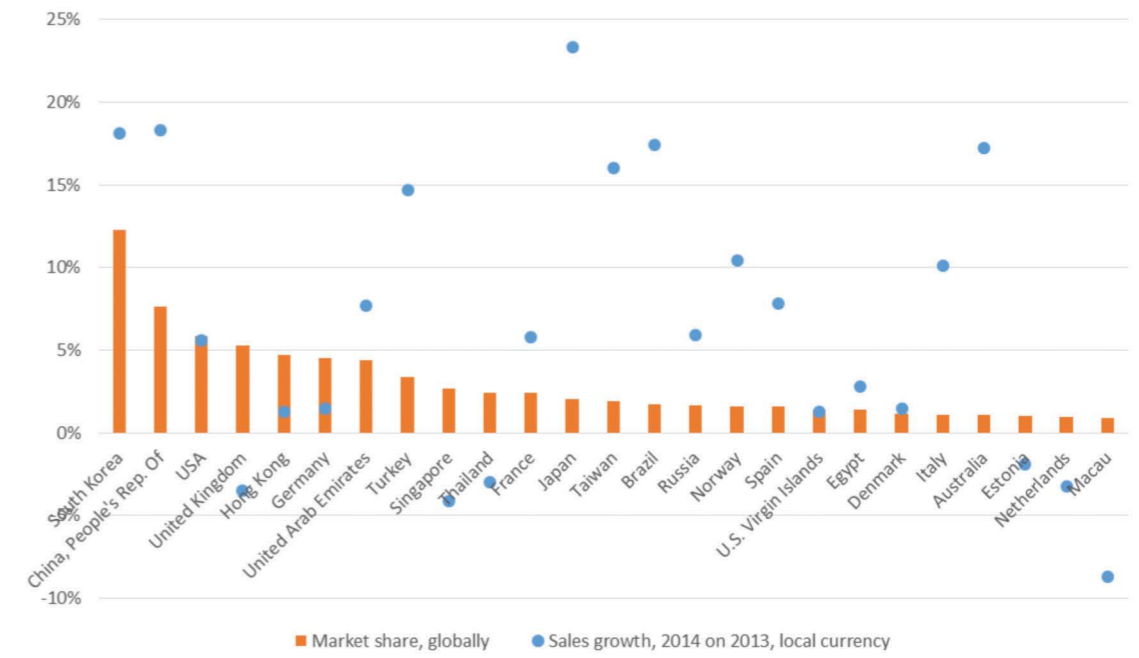
Figure 5 Duty free and travel retail sales, regional shares, 2000-2014



The pattern of growth across regions is reflected in the market share and most recent growth rates for individual countries. Three of the top five countries and territories by duty free and travel retail sales are located in Asia (South Korea, China and Hong Kong).

Growth in China, where stores off airport and open to Chinese residents have been licensed, has been particularly strong, around 20% per year between 2012 and 2014. The ranking of countries and territories by market share of global sales, and their most recent growth rates, is shown in Figure 6 below.

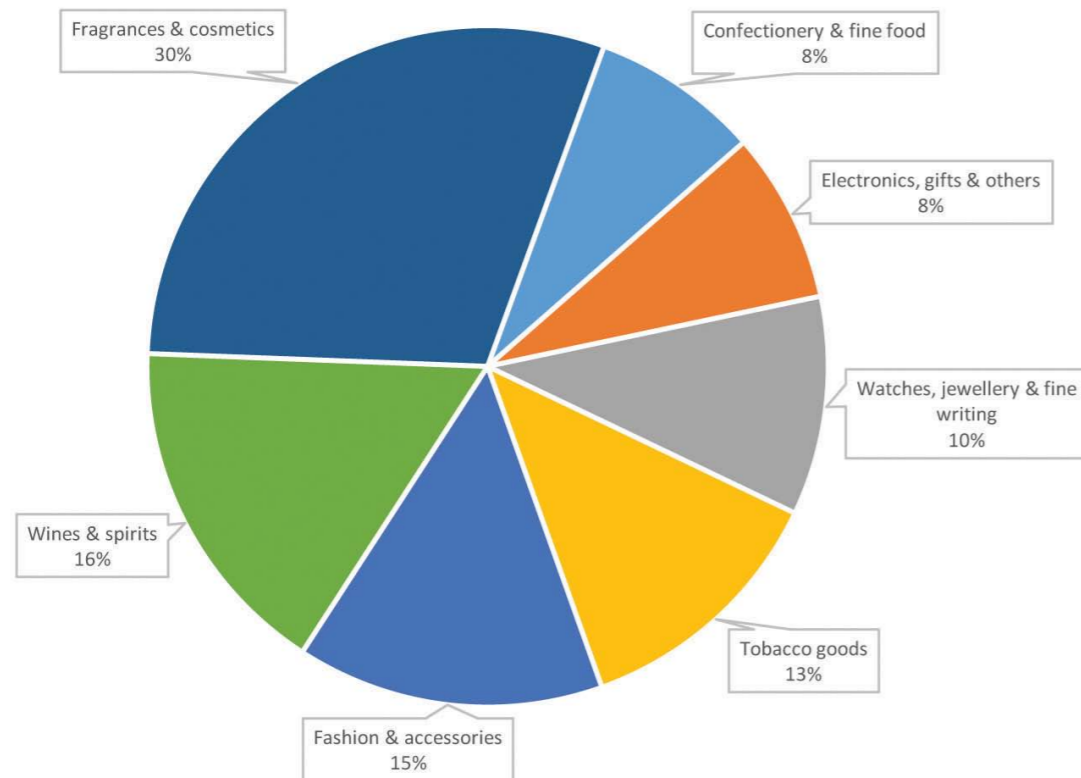
Figure 6 Market share and annual growth rate of duty free and travel retail sales, 2014



2.4 Duty free and travel retail product categories

Duty free and travel retail sales are typically analysed by seven broad product categories, as shown in Figure 7 below.

Figure 7 Global duty free and travel retail sales, product category market shares, 2014



There is a striking degree of similarity in how sales are distributed by product group across the regions, even where the absolute levels of sales differ between regions, as shown in Figure 8 below and Figure 9 overleaf.

Wines and spirits account for 15-20% of sales in all regions, while fragrances and cosmetics account for 20-30% of sales. There is more variation between regions in the share of some other product groups, notably tobacco.

Figure 8 Sales by product group and region, 2014

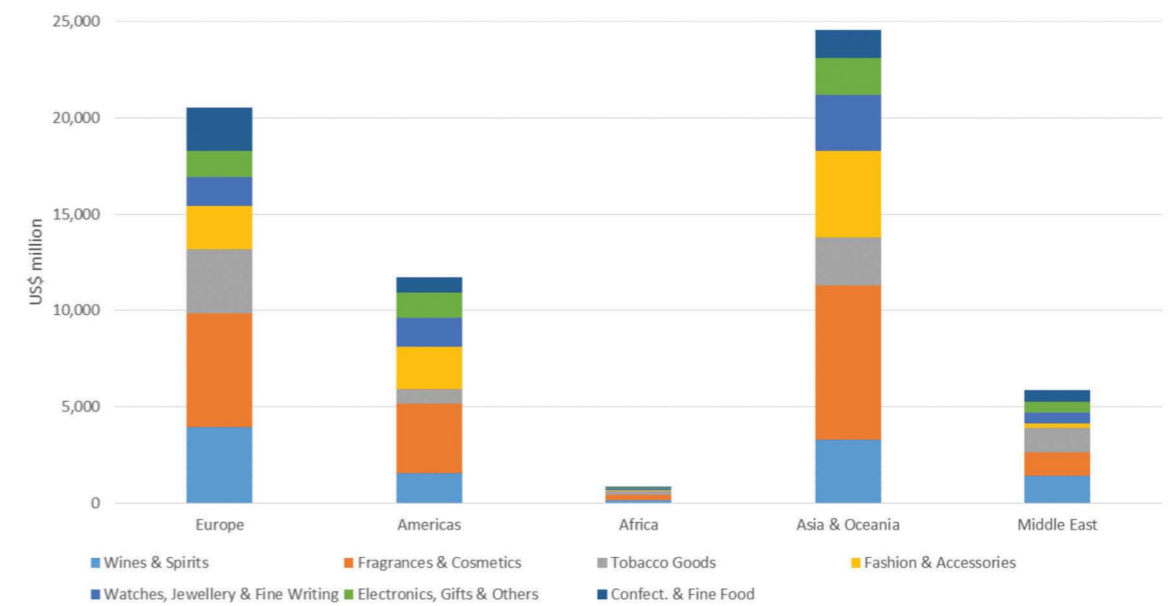
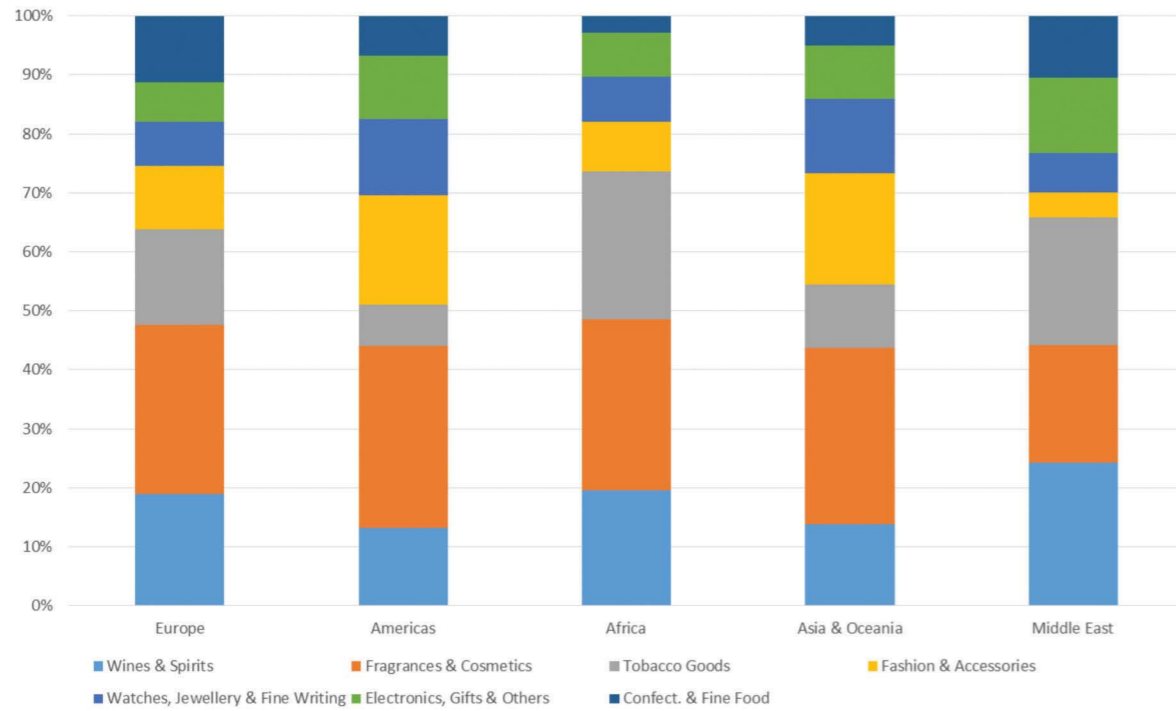


Figure 9 Product group market share, by region, 2014



In terms of evolution of duty free and travel retail product groups over time, tobacco goods have seen the sharpest decline in the overall share of sales, falling from 23% to 13% in the period 2003 to 2014.

Although its share of total sales has declined in recent years, tobacco remains an important category of duty free and travel retail: it generates high margins for retailers, which are then passed on to the host airport, airline or ferry line in the form of higher concession fees than for other product categories. Passengers who buy tobacco are also likely to buy products in other categories.

Sales of wine and spirits also declined markedly as a share of total sales (from 20% to 16%). The category showing the largest gain in share of revenue is fashion and accessories, increasing from 7% to 15%.

The largest absolute gain in revenues was delivered by fragrances and cosmetics (an increase from \$5.3 billion to \$19.0 billion), which accounted for 30% of total sales in 2014, up from 23% in 2003. These trends are illustrated in Figure 10 opposite. Within Europe, these patterns of changing shares for product categories are illustrated in Figure 11 opposite³.

Figure 10 Percentage share of global sales by product category, 2003 to 2014

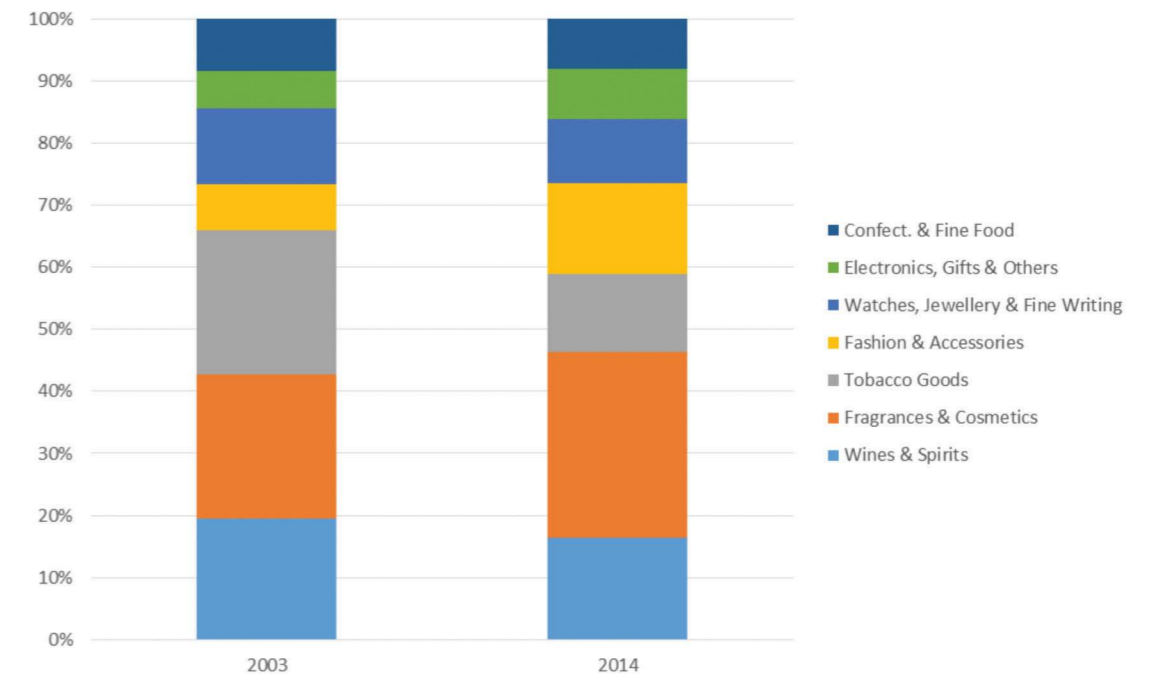
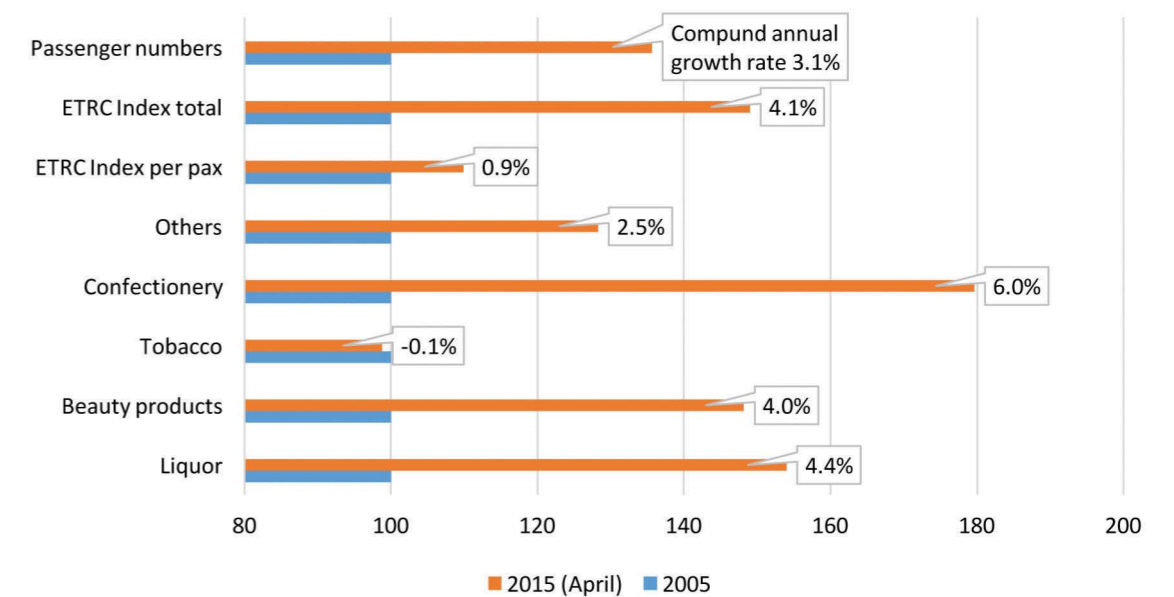


Figure 11 ETRC Index of duty free and travel retail sales, 2005-April 2015



³ Source: ETRC Index, compiled by the European Travel Retail Confederation. The bi-monthly index monitors movements in sales across the business, mapping data contributed by participating Retailers and National Associations against the passenger numbers for the airports covered in the survey. In 2011 the ETRC Index represented an average of 70% of EU airport travel retail sales.

Retail revenues as a whole (in nominal terms) grew faster than passenger numbers over the decade. Confectionery and wines and spirits were the two categories growing faster than average.

In parallel with the early adoption and growth of duty free and travel retail within Europe, the goods themselves were primarily of European origin. As the sector has grown within Europe and also globally, this has resulted in the huge range of goods which are now stocked in airports and other sales channels around the world being dominated by European brands.

Duty free and travel retail sales thus contribute to growing European export markets, both in straightforward measurements of export sales in a given year, but also in introducing new products and brands to consumers in other markets. Having established brand awareness via travel retailing, European suppliers can then gain further sales via within-country retail outlets.

2.5 Conclusion

Duty free and travel retail is a very well developed activity in Europe, and is significantly more mature a market than in other regions. Europe has lost its previous dominance as the leading region to Asia Pacific, and the absolute and relative growth rates of duty free and travel retail sales in Europe have declined against other regions, notably Asia and the Middle East, in the past decade.

Airport duty free and travel retail is the dominant sales channel in Europe, at two-thirds of the total, similar to the Middle East, with maritime sales also making a notable contribution (due to European geography), unlike in other regions. The balance of product categories is broadly similar across most of the major regions for duty free and travel retail, with a marked decline in tobacco over the past decade, offset by above average growth in confectionery and wines and spirits

3 Duty free and travel retail within the European airport sector

3.1 Overview

This section describes the role of duty free and travel retail within the European aviation sector. Data are presented for 2013 by airport size categories, which enables more meaningful comparisons between Europe and other regions, as there tend to be greater similarities between airports of similar sizes across regions than within a region⁴.

Europe has a highly developed and productive airport duty free and travel retail sector, which makes a major contribution to the financing of airports and their infrastructure. Retail plays an important role in the economic operation of airports of all sizes. In the most recent years, though, revenues per passenger have started to decline (down 0.9% in 2013 on 2012) as a result of market maturity, continuing impact of the 2008-09 recession, and the practice by some airlines (now largely ceased) of restricting the carriage on-board of more than one bag, which deterred duty free and travel retail purchases⁵.

In addition, the growth in online retailing is changing the way consumers use physical stores and websites to compare products and make purchases, presenting a growing challenge to some categories of duty free and travel retail sales.

Finally, duty free and travel retail may be adversely affected by the growth in consumer protection measures in Europe (such as food labelling rules), which have been designed around domestic retailing rather than the unique characteristics of retailing in the context of international transport.

Several of these factors are likely to persist in coming years, with the result that airports will have to work harder with their retail partners to maintain the contribution which passengers make to airport finances via their engagement with retail offerings at airports. According to ACI Europe's Director General⁶: "Competitive pressures on airports' commercial activities have been growing for some time, but 2013 was a turning point.

For the first time, not only were commercial revenues decreasing on a per passenger basis (at -4.1%), but this decrease was actually much steeper than the contraction in aeronautical revenues (at -0.8%). This new situation is pointing to a serious challenge for the airport industry's well established financial model. Since airlines and passengers pay nowhere near the full cost of the infrastructure they use, our ability to modernise and develop to offer higher quality and more connectivity has always been conditional upon growing our commercial revenues."

⁴ Unless otherwise stated, data in this section are sourced to the Airport Commercial Revenues Study 2014, Moodie Research and The S-A-P Group. This study is based on a sample of 120 airports, categorised by size, with data collected for calendar year 2013. Retail revenue (unless otherwise stated) includes food & beverage sales, as well as sales from duty free and other retail shops.

⁵ For background on this issue, see report for the European Travel Retail Confederation, 'The economics and regulation of on-board carriage of European airport retail sales', September 2013

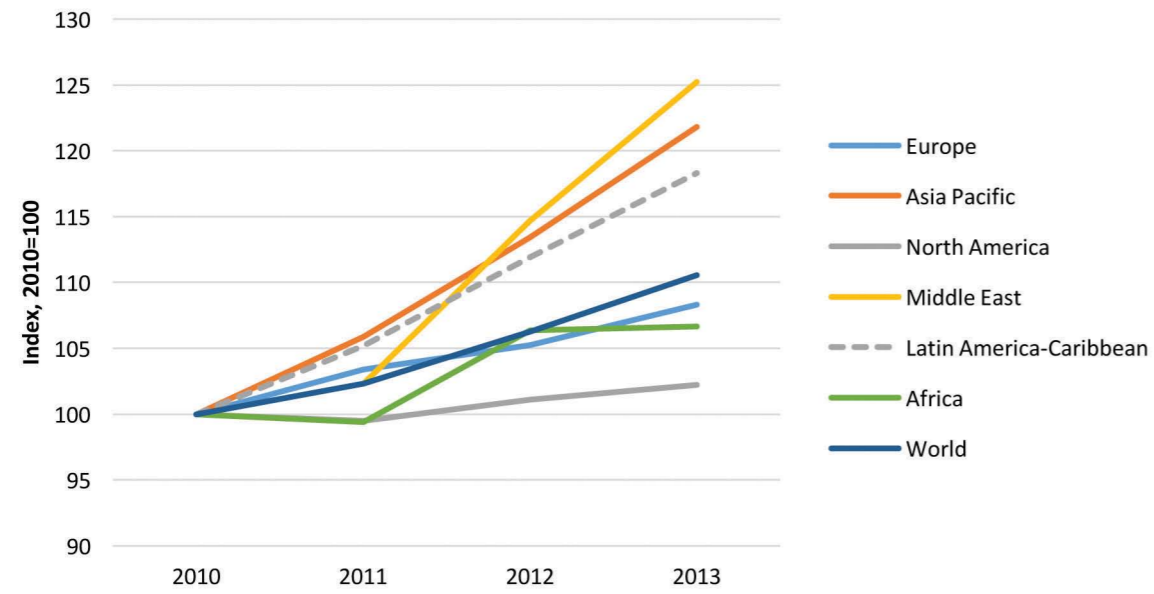
⁶ ACI Europe press notice (Europe's airports: Changing traffic & financials, intensified competition), 25 June 2015

3.2 Trends in passenger traffic

The European aviation sector has experienced steady growth in traffic in recent years, following the financial crisis of 2008 and 2009 and subsequent economic recession.

Passenger numbers grew by 2.7% per year from 2010 to 2013, faster than in North America but slightly behind global growth rates of 3.4% per annum, as shown in Figure 12 below.

Figure 12 Air passenger traffic index



3.3 Duty free and travel retail revenue as significant element of airport revenues

As discussed in detail later in this report, the finances of airports in general rely upon two broad revenue streams: aeronautical revenues from airlines and passengers (usually paid via airlines), for aircraft movements and passenger processing, and commercial revenues from other activities at the airport. Commercial revenues are a major element of airport revenues in Europe, and within that category, duty free and travel retail revenues are an important source of income.

Income, sales and yield - definitions

Commercial income (or revenues)

Commercial income (or revenues) represents the fees paid to the airport operator by concessionaires (companies renting retail space). The fees include rents, minimum guarantee payments, and royalty fee payments (percent of sales fees) made to the airport by concessionaires.

Commercial sales

Sales turnover by operators of commercial activities at the airport. Sales represent the sum of customer purchases at the airport.

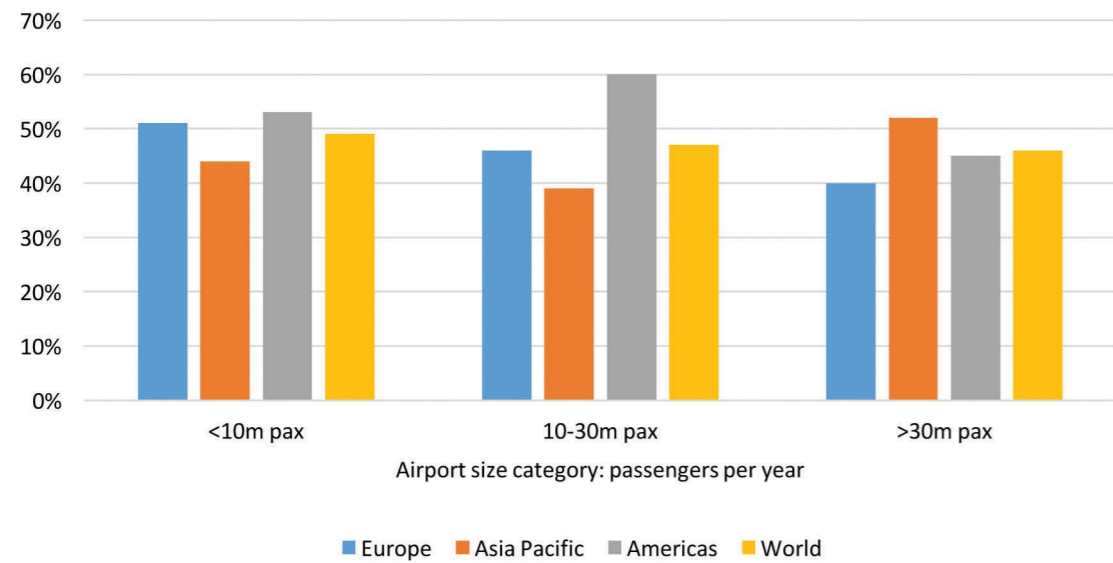
Yield

Yield is defined as commercial income divided by commercial sales.

(Source: Airport Commercial Revenues Study, 2014, The Moodie Report)

Figure 13 below shows that commercial revenues contribute 40-50% of total revenues at European airports. Smaller airports, with fewer than 10 million passengers, are particularly dependent on this revenue source as they are typically exposed to greater competition in their aeronautical business and thus subject to strong competitive pressures on their aeronautical charges.

Figure 13 Non-aeronautical revenue as share of total airport revenue

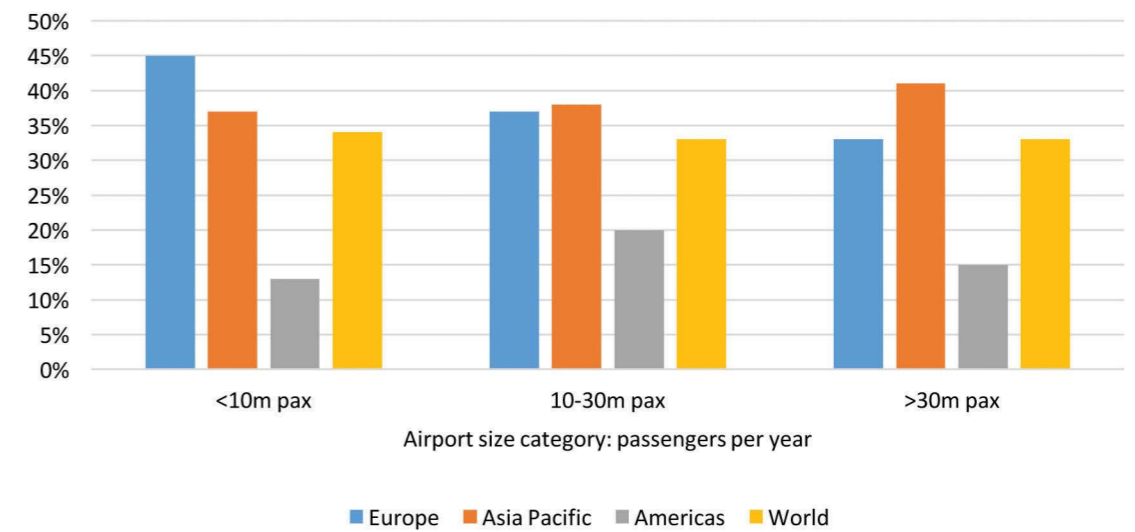


Within commercial, non-aeronautical revenues, retail revenues typically make up the largest single revenue source, as shown in Figure 14 below.

Again, smaller European airports have a greater relative reliance on retail revenues, which contribute around 45% of all non-aeronautical revenue,

compared to one-third for the largest airports. In absolute terms, though, larger airports are able through greater density of passenger demand and economies of scale and scope, to generate significantly higher retail revenues per passenger. (This is illustrated further in chapter 7 below).

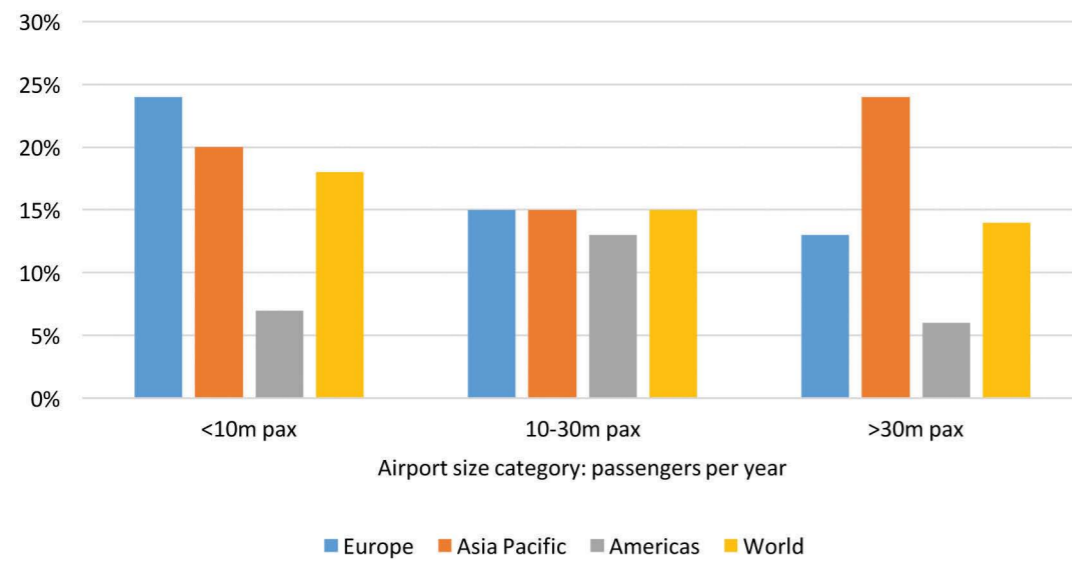
Figure 14 Terminal retail revenue as share of airport non-aeronautical revenue



Combining these two factors, duty free and travel retail revenues make a significant contribution to overall airport revenues across all size categories of European airports. Smaller airports are particularly reliant on this revenue stream, which makes up some 24% of total revenue, compared to an average of 17% for all European airports. Duty free and travel retail is particularly valuable as a source of revenue for such smaller airports.

Because such airports are subject to greater space constraints within terminals, and may not have the financial means to build larger airside space for passenger handling and retail, they benefit particularly from the proportionally greater revenue per unit area generated by duty free and travel retail compared to other terminal-based commercial activities, often limited by space and viability for the operator to a news and convenience store and a food and beverage outlet.

Figure 15 Terminal retail revenue as share of airport total revenue



3.4 Retail infrastructure at airports

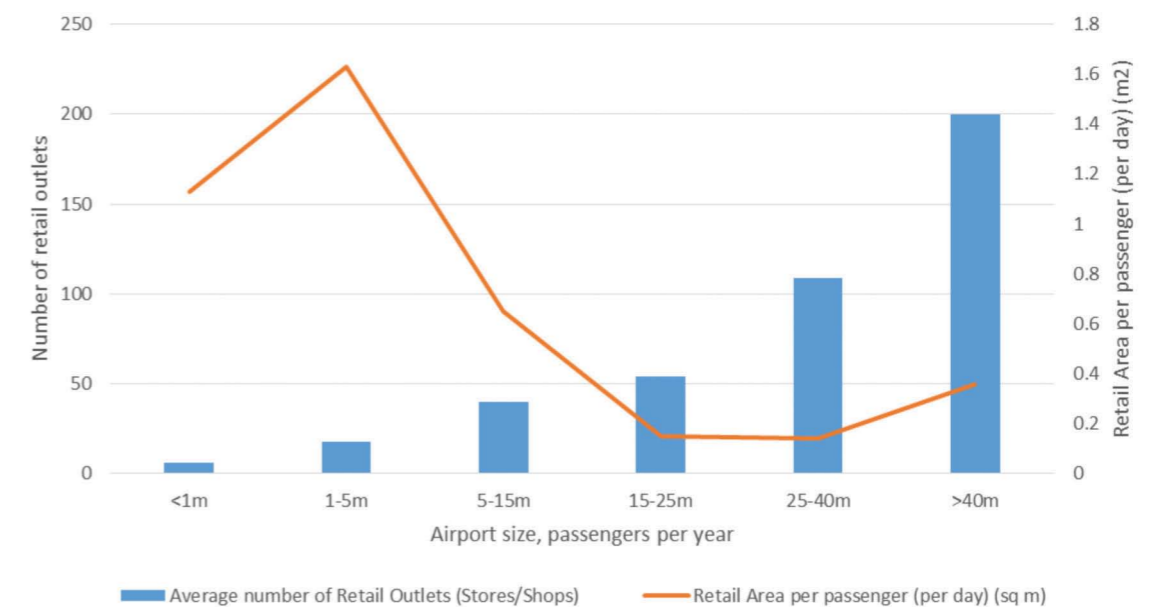
As with any retail development on the high street or shopping mall, greater footfall of potential customers provides the economic base for a wider range of retail outlets. This is illustrated by the greater average number of shops within airport terminals at airports with higher passenger numbers: smaller airports (1-5m passengers) have on average 18 stores or shops, compared to 109 for larger regional airports (25-40m passengers) and 200 for the largest category (more than 40m passengers)⁷.

The intensity of use for this retail real estate increases markedly as airport size and passenger footfall increases. The smaller airports (1-5m passengers) have on average 170,000 passengers per shop, and provide 1.63 square metres of retail space per passenger per day.

For the larger regional airports (25-40m passengers), more passengers are served with greater concentration of passengers per shop (300,000) and a much smaller retail area per passenger (0.14 square metres). For the very largest airports (greater than 40m passengers), this trend towards more intensive use of space moves in the opposite direction, as airports are able to provide a much wider array of retail outlets with a slightly higher average space per passenger (0.36m²).

This capacity within terminals also allows individual brand outlets to develop their own retail space, and for larger duty free shops to create branded areas within a larger store, both of which support higher value sales in categories such as fragrance, cosmetics and fashion and accessories. These patterns of retail infrastructure provision and use are illustrated in Figure 16 below.

Figure 16 Retail infrastructure by airport size, 2012

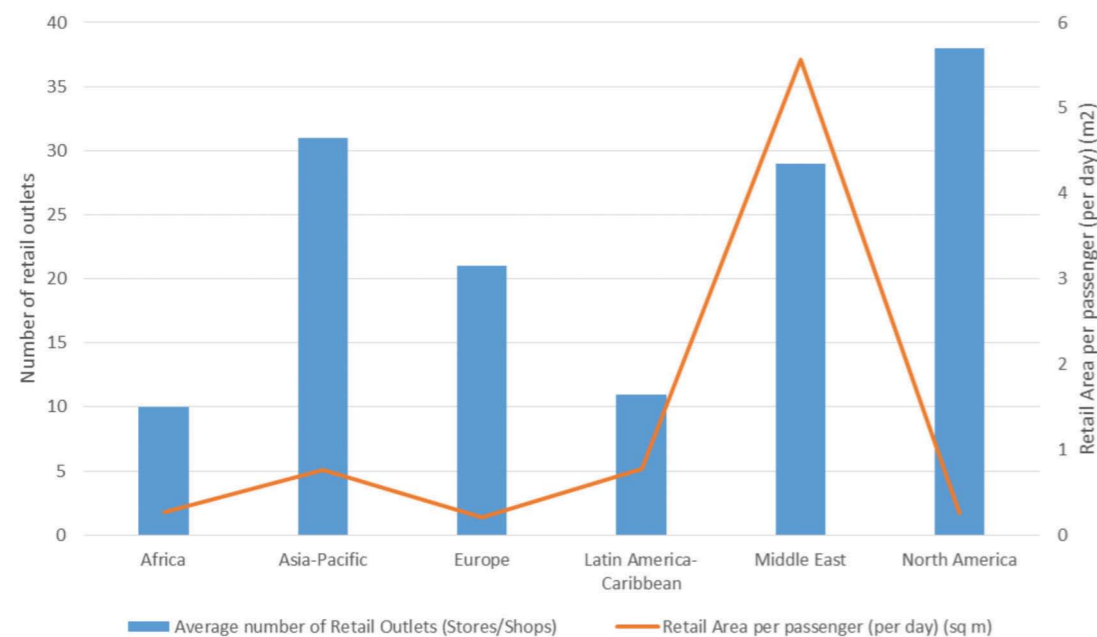


⁷ Data in this section sourced to 2013 ACI Airport Economics Report

Considering the pattern of airport retail infrastructure by region (Figure 17 below), airports in Europe, Asia-Pacific, Middle East and North America show a similar average number of retail outlets (in the range 20-40). The variation between regions is likely to be driven by differences in average airport size in each region, with Europe having a larger number of smaller airports. There is a distinct difference though in the space provision for retail at Middle East airports; at 5.6m² per passenger per day, this is an order of magnitude higher than the figures for all other regions.

This result stems from the very significant retail mall developments which are an integral part of many of the new, larger Middle East hub airports, which allow for generous provision of space for shopping, recognising the key role duty free and travel retail play in the commercial positioning and viability of these airports.

Figure 17 Retail infrastructure at airports by region, 2012



The way in which capacity for retail activity can be an integral part of the design of new passenger terminal facilities, while at the same time meeting the operational requirements of airlines, is illustrated in the case study at Annex 5 on London Heathrow Airport's new Terminal 2, which is summarised below.

Ensuring that airport retail works with the operational requirements of airlines - London Heathrow Terminal 2

Airport retail has the potential to contribute significantly to airport finances and to improve passenger experience while at the airport. However, as airports have become busier and there is increasing emphasis on airline on time performance it is increasingly important that it works with the grain of good passenger flow through the airport. This means that retail design has to balance optimisation of commercial potential with the operational requirements of airlines to enable passengers to arrive in good time at departure gates. This can be achieved through a combination of good design, ample way finding and flight information and reliable infrastructure to assist the passenger journey.

Heathrow T2 opened in 2014, the second of the airport's entirely new terminals following T5's opening in 2008. The retail component was integral to the terminal's design as was also the need to incorporate airline concerns about passenger flow through provision of information and reliably fast travelators. The retail space is intended to have a British flavour and to contain brands which are new to travel retail. The overall combination of retail experience and operational performance has contributed to passenger satisfaction scores in excess of 80 per cent, ahead of Heathrow as a whole and of European comparator airports.

3.5 Patterns of duty free and travel retail activity

Duty free and travel retail is well developed within Europe, as measured by retail revenue to the airport as a share of airport total revenue, which averages 17%, compared to 20% for Asia-Pacific airports and 9% for those in the Americas⁸.

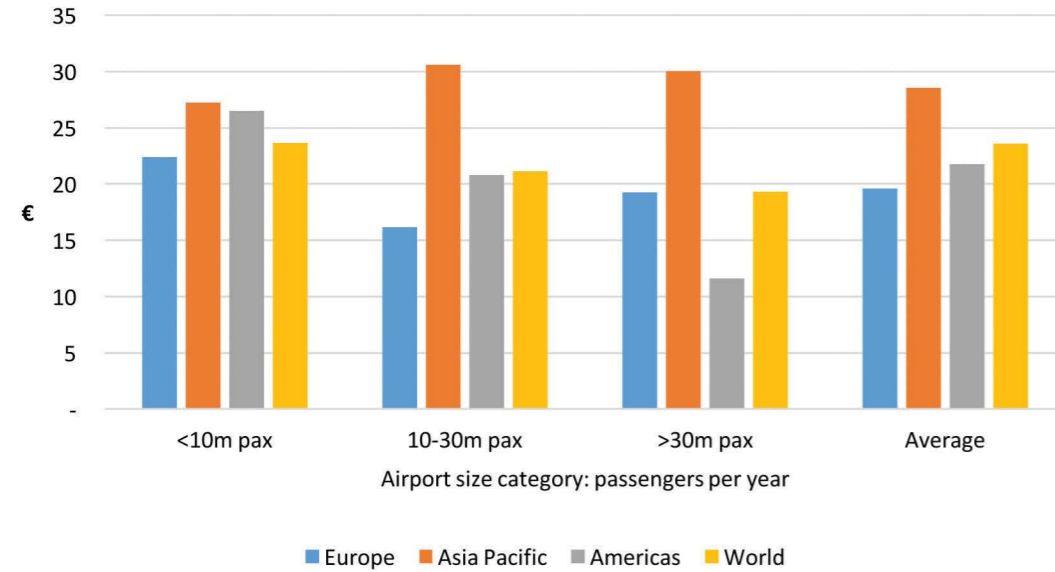
Across European airports, a significant proportion of passenger traffic is within the European Union. Retail sales within airport terminals for such passengers are subject to normal duty and taxes. So although passenger spend per transaction on those sales which are duty free is similar within Europe to the spend per transaction in, for example, Asia Pacific, a smaller proportion of sales at EU airports are duty free than in international airports in other regions.

As a result, duty free sales make a smaller contribution to overall duty free and travel retail revenues for European airports than they do for other airports in other regions.

Duty free sales per passenger were just under €20 per departing international passenger in 2013, compared to around €24 for the global average.

⁸ Data in this section are sourced from Airport Commercial Revenue Study 2014, The Moodie Report and The SAP Group. In this study, revenues and spend are reported on a per departing passenger basis. To enable comparisons with ACI Europe data quoted later in this report, the ACRS data for retail revenues to the airport are shown on a per total passenger (departing and arriving) basis.

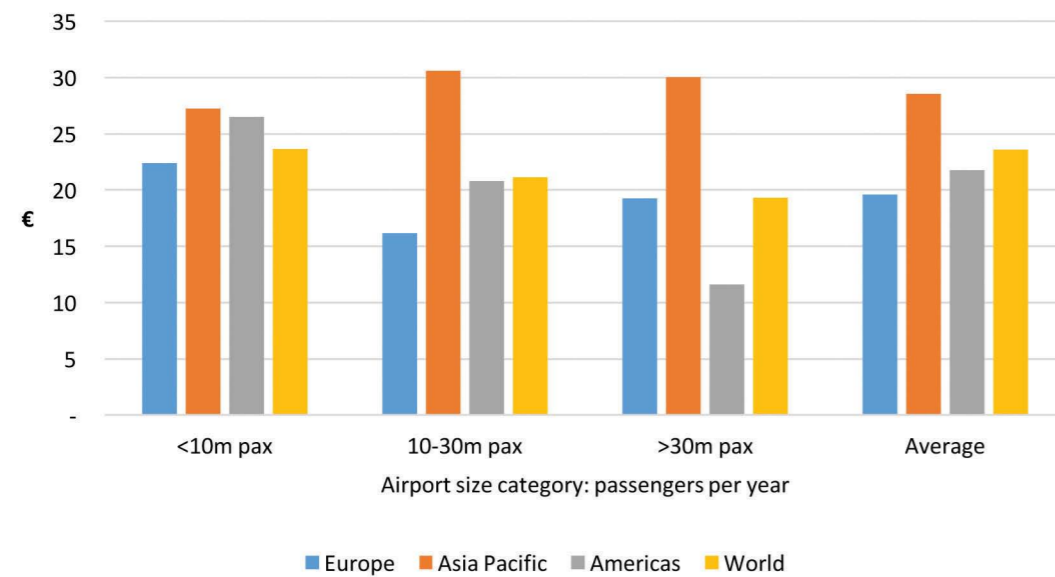
Figure 18 Duty free sales per departing international passenger, 2013



In Europe, and in Asia Pacific, larger airports are able to benefit from scale effects - larger areas of the terminal allocated to duty free and travel retail, longer passenger dwell times associated with long haul flights and transfer traffic, and greater range and depth in the retail offer.

This benefit is converted into higher sales in absolute terms, but also relative to the area allocated to duty free and travel retail. In Europe, the duty free sales per square metre of shop space is more than double in the largest airports compared to this sales ratio in the smallest airports, as shown in Figure 19 below⁹.

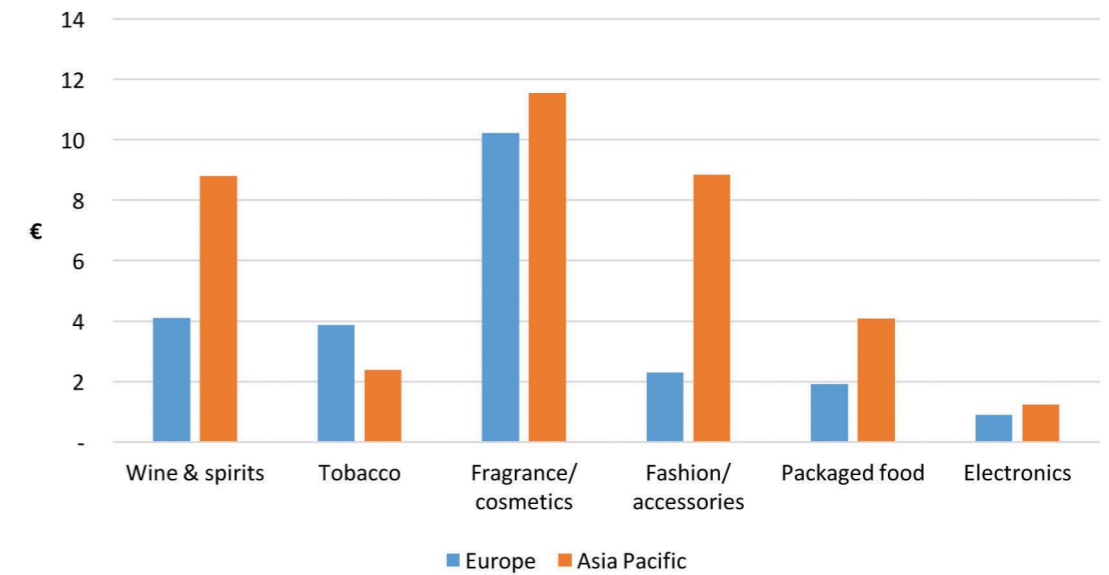
Figure 19 Duty free sales per square metre of shop space, 2013



⁹ For airports located within the EU, duty free sales measures revenue from sales to passengers travelling to non-EU destinations

In terms of categories, fragrance and cosmetics is the dominant sales category for duty free and travel retail sales in European airports, followed by wines and spirits and then tobacco.

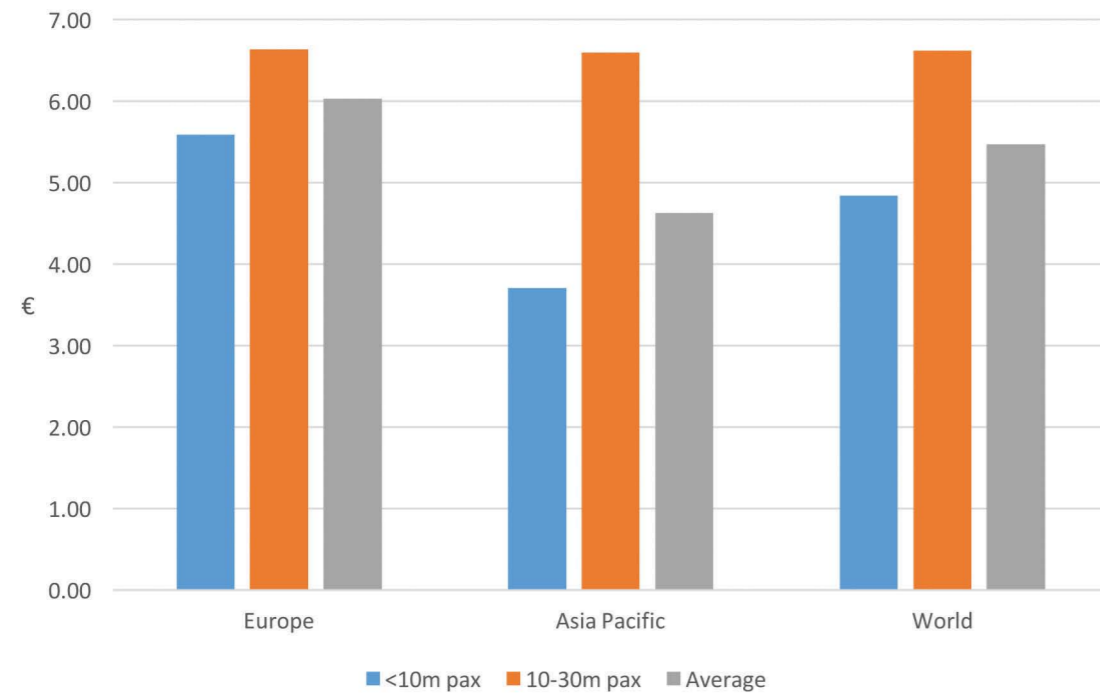
Figure 20 Duty free sales per departing passenger, by category



In addition to duty free and travel retail stores, airports often host a range of other retail shops, such as newsagents and book stores, travel product shops, and other speciality shops.

These outlets typically generate sales per passenger somewhat lower than those achieved in duty free and travel retail shops.

Figure 21 Average non-duty retail sales per departing passenger, 2013



3.6 Converting travel activity to airport revenues

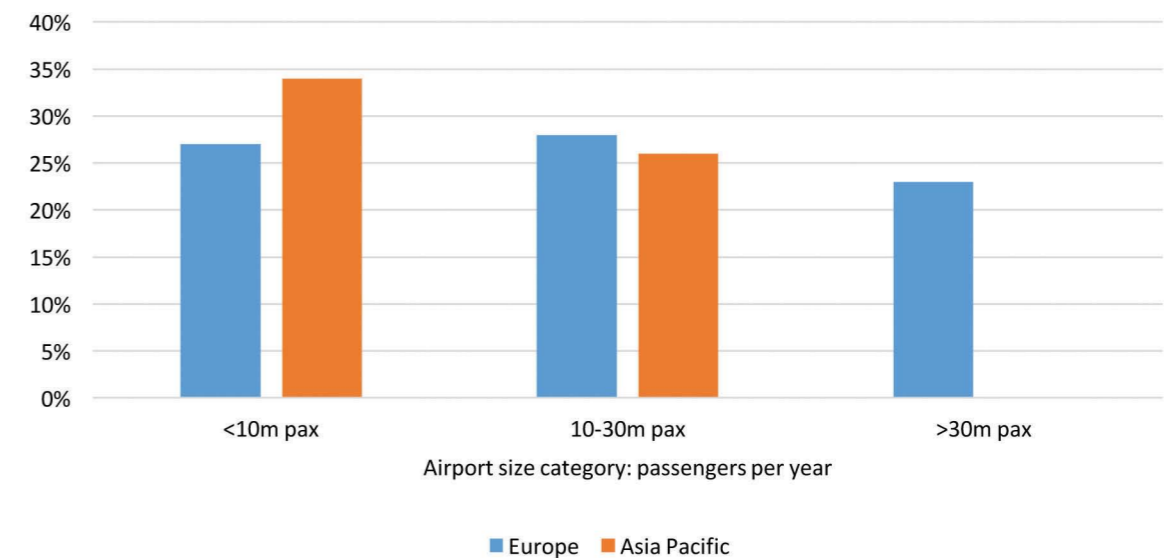
Airports rent space in terminals to retail operators on a concession basis, typically for periods of 5-8 years (often longer for duty free and travel retail shops). Retail concessions are governed by contracts which specify fixed rent and variable concession rates payable to the airport, typically linked to sales in particular categories and passenger numbers. Concessions often include sales targets and variations in rates of payment to the airport if actual sales exceed target, as well as variations in rates across product categories and between destinations of passengers (notably proportion of EU versus non-EU).

The net result of these concession contracts is an overall yield, measured as the revenue to the airport per sales in airport retail outlets.

As shown in Figure 22 opposite, airports in Europe are estimated currently to generate yields from duty free and duty paid sales of around 25%, and often higher (around 30%) for duty free¹⁰.

This is a valuable revenue stream which contributes directly to the airport's overall earnings. By contrast, retailers typically retain yields of only around 5% of sales, after costs of goods and operating costs of shops, supply chain and management.

Figure 22 Duty free and duty paid yields

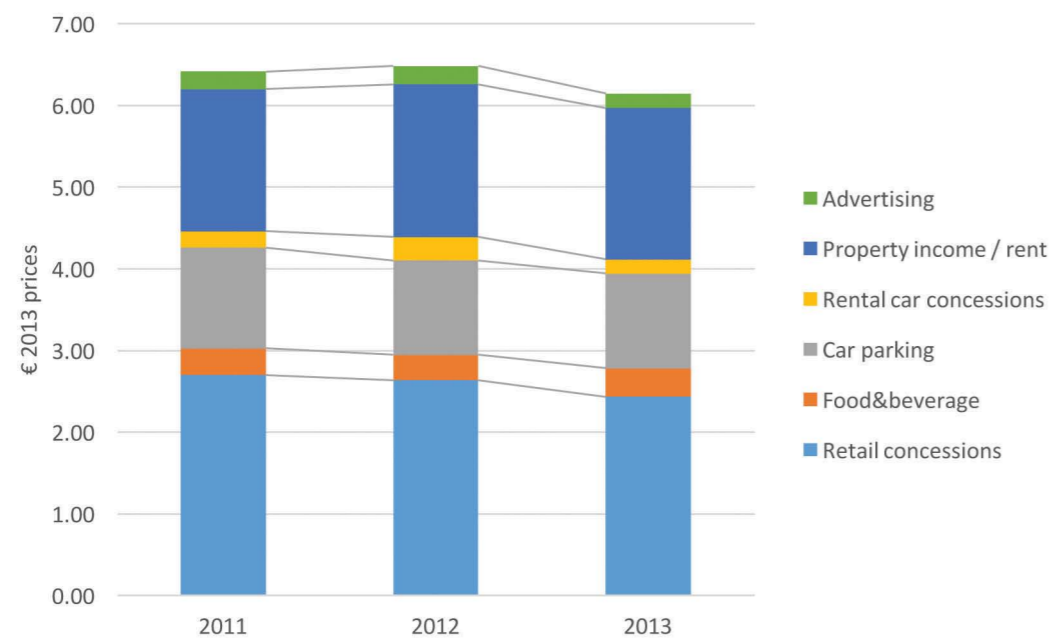


¹⁰ Source: DFWC industry estimates

The revenue generated by airports from duty free and travel retail is a product of the sales volumes in each product category and the yields achieved by airports from individual retailers. European airports have typically been able to generate the largest element of their non-aeronautical income from retail concessions, around 40%.

On a per passenger basis though these revenues have started to decline slightly in real terms in recent years, falling by 10% from €2.70 in 2011 to €2.43 in 2013¹¹.

Figure 23 Non-aeronautical income, European airports



¹¹ Source: ACI Europe, 2013 prices

As patterns of air travel evolve over time, airports can take advantage of changes in the type and number of passengers to align their retail strategy to their overall commercial strategy, and thereby boost traffic and revenues. This is illustrated by the case study at Annex 4 on Helsinki Airport, Finland, which is summarised below.

Changing retail to support airport commercial strategy - Helsinki Airport

Different types of passenger, and nationalities, will have varying requirements of retail. A well designed airport retail space will take account of how different passenger groups move through the airport and the amount and type of shopping that they do.

This means that the retail offer will need to change to reflect changes in the composition of passengers, most typically the balance between business and leisure or of long haul versus short haul. In many cases this will be an organic process over time. However, where an airport's strategic direction changes the retail offering may need to adapt more significantly.

Helsinki Airport has sought over the last decade, in support of Finnair's business strategy, to grow its hub traffic, exploiting its favourable geographic position between East Asia and Western Europe over the North Pole.

This development has resulted in both a growth of passengers but also a significantly different mix. The proportion of Finns using the airport has declined with a corresponding increase in Asian and Russian nationalities.

This has both increased the commercial potential of retail, given the higher spending propensities of the new passengers, and required a change in its composition with more emphasis on well-known international brands.

¹² Source: ACI Europe

The result is a retail offering that is, overall, less oriented towards Finnish tastes, although the airport still seeks to maintain a good representation of Finnish products, in particular those of appeal to international passengers. In this way retail has been able to support the airport's broader strategic direction and to take advantage of the commercial opportunities it creates.

3.7 Conclusion

Europe has a long established, well developed and productive airport duty free and travel retail sector. It currently generates retail revenues of around €2.5 per departing passenger¹², around 40% of non-aeronautical incomes. This position, however, has come under some pressure in recent years, from a variety of directions, notably: the on-board carriage rules of some low cost airlines, the impact of consumer protection regulations which are not tailored to the unique international travel setting of airport retail, and the broader changes in consumer behaviour which have been brought about by the growth in online shopping. Several of these factors will likely place growing pressure on airport retail to maintain sales and revenues in coming years.

4 Duty free and travel retail within the European airline sector

4.1 Overview

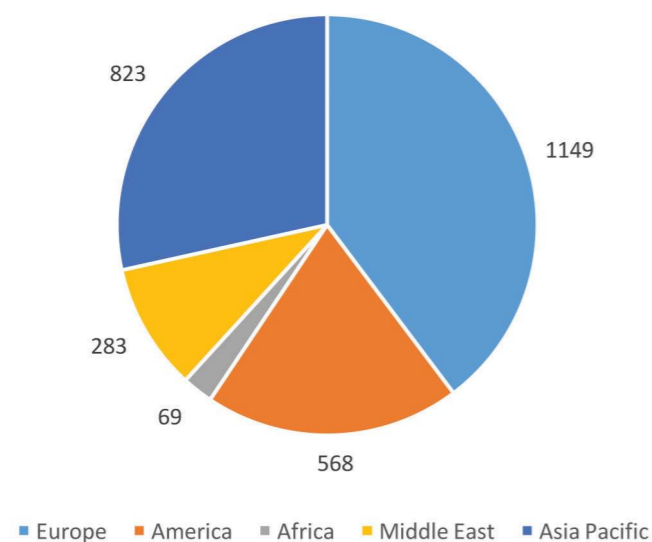
This section describes the role of duty free and travel retail within the European airline sector. On board duty free and travel retail makes some contribution to the ancillary revenues of many airlines, thereby enhancing the airline industry's overall revenues and profitability, and contributing to passenger demand for air travel by offsetting ticket prices. Duty free and travel retail does not, however, represent a major structural source of finance for the sector, as it does for airports within Europe.

4.2 Context

Duty free and travel retail in the European airline sector generated €850m sales in 2014¹³, around 5.5% of total duty free and travel retail revenues in the region. Compared to duty free and travel retail in airports, on board airline sales were 8% of those in the airports sector. This relative importance of airline duty free and travel retail in Europe is similar to its global position, around 4.6% of total duty free and travel retail revenues and just under 8% of the revenues generated in airport duty free and travel retail. It thus contributes to airline revenue generation, but is not a central source of income. Clearly, airlines face considerable space and weight constraints, which place a natural limit on the growth of on-board retailing.

Europe has the largest regional revenues for airline duty free and travel retail, accounting for just under 40% of global sales, followed by Asia Pacific and the Americas, as shown in Figure 24 below.

Figure 24 Airline duty free and travel retail sales (\$ millions), 2014/15



Globally, airline duty free and travel retail has shown little absolute growth in recent years, with total sales varying between US \$2.5 billion and \$3 billion in the period 2007 to 2014.

As a share of total duty free and travel retail sales, on board airline sales have declined steadily from 7.3% in 2006 to 4.6% in 2014, as shown in Figure 25 below.

Figure 25 Global airline duty free and travel retail sales, 2003-2014



¹³ Source: all data in this chapter sourced to Generation Research, unless otherwise stated. Sales attributed to region in which each airline is headquartered

In terms of product categories, sales by European airlines are fairly evenly distributed: fragrance and cosmetics and wines and spirits together account for 44% of total sales, and fashion and accessories, tobacco goods and watches and jewellery together making up 38% of sales, as shown in Figure 26.

Compared to global averages, European airlines tend to sell more confectionery, tobacco goods and wines and spirits, and proportionately less fragrance and cosmetics products, as shown in Figure 27 below.

Figure 26 Airline duty free and travel retail sales by region and product category, 2014/15

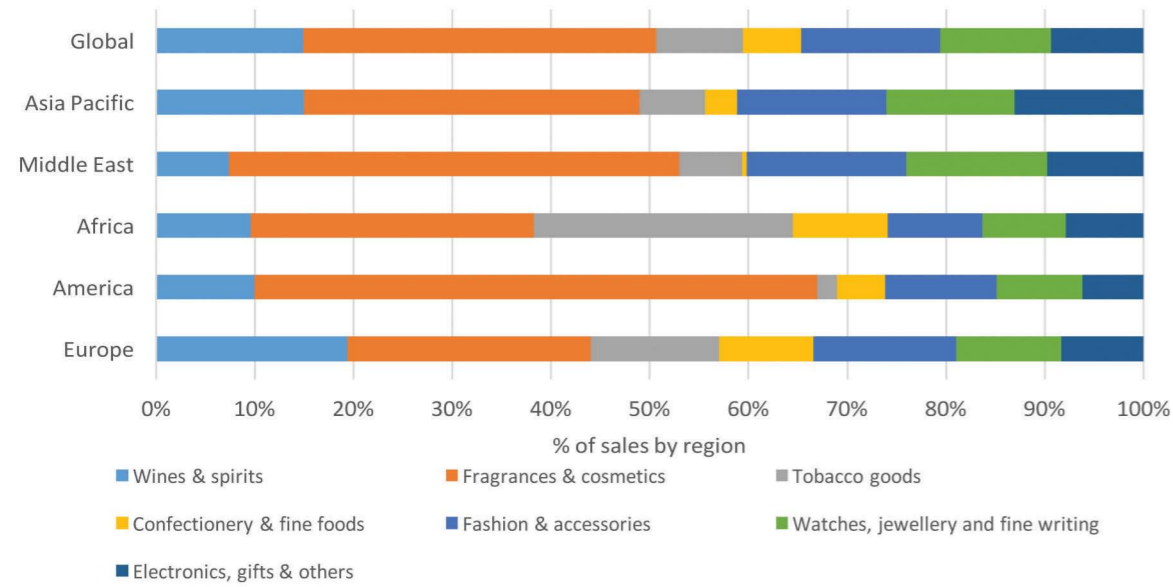
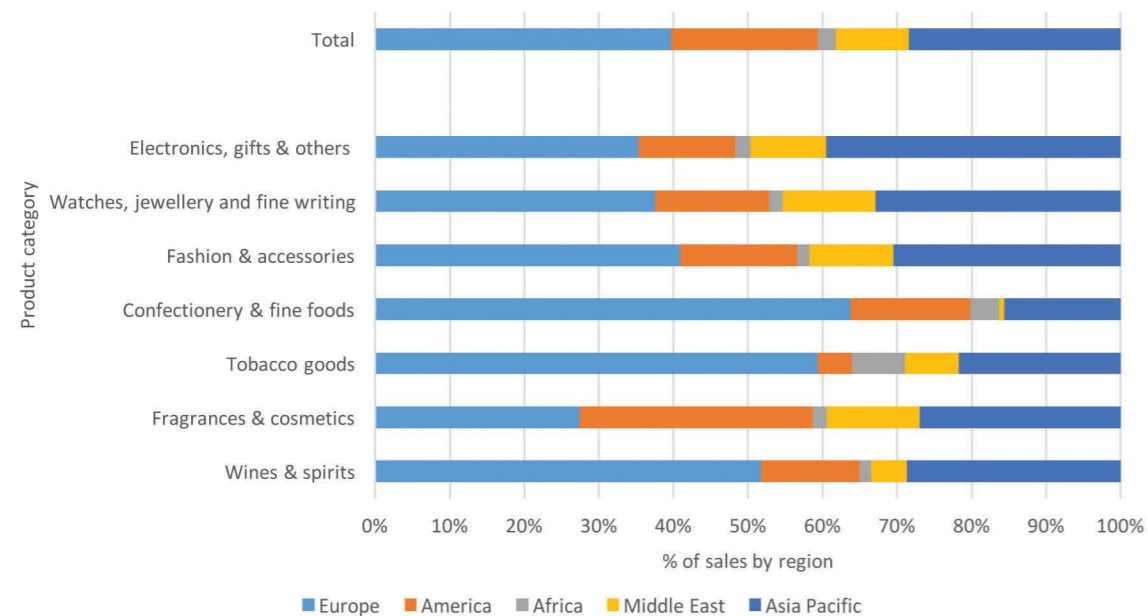


Figure 27 Airline duty free and travel retail sales by product category and region, 2014/15



For some airlines, aircraft cabin staff are incentivised to make on-board sales through commission payments, which become a performance-related element of staff income. Thus duty free and travel retail sales can help pay for part of the overall remuneration of airline staff, and thereby reduce the staff costs borne by the airline itself.

For some low cost carriers, the growth of such ancillary revenues has been very substantial in recent years, enabling them to moderate air fares and thereby stimulate demand for air travel. For example, in 2014/15, Ryanair generated €62 revenue per passenger, of which €15 (24%) was non-fare revenue, which includes duty free and travel retail¹⁴. Other low cost carriers in Europe, US and Asia have similarly high levels of ancillary revenues as share of total revenues, as shown in Figure 28 below.

Duty free and travel retail is just one part of the growing range of activities from which many European airlines derive ancillary revenues.

Figure 28 Ancillary revenue as % of total revenue, 2014¹⁵

Airline	Nationality	Ancillary revenue as % of total revenue, 2014
Spirit	US	39%
Wizz Air	Hungary	34%
Allegiant	US	32%
Jet2.com	UK	29%
Ryanair	Ireland	25%
Tigerair	Singapore	22%
Jetstar	Australia	21%
Flybe	UK	21%
AirAsiaX	Malaysia	20%
Volaris	Mexico	20%

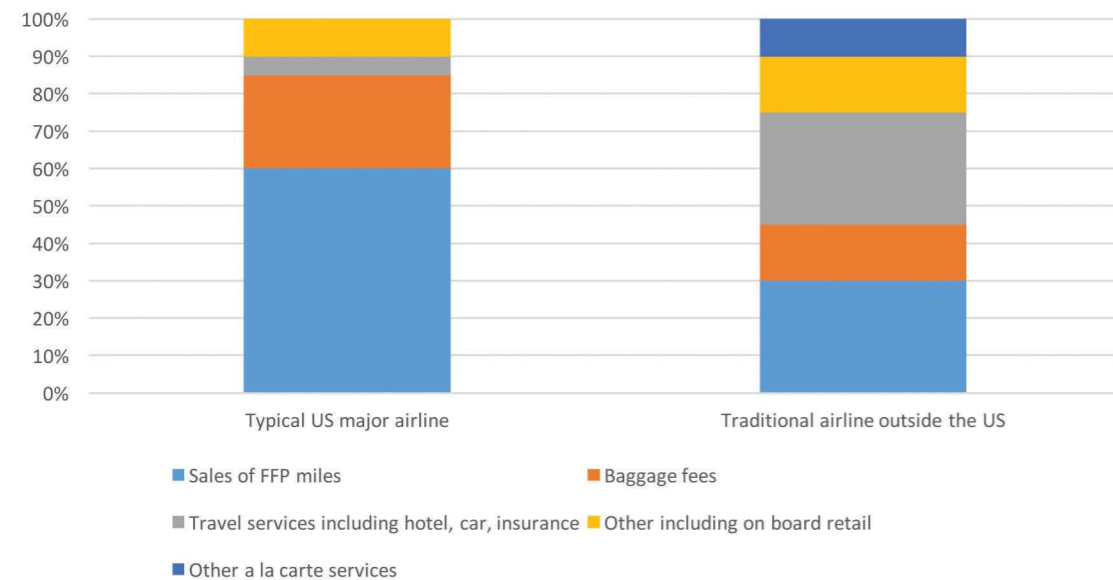
¹⁴ Source: Ryanair results presentations

¹⁵ Source: IdeaWorks global survey of airline ancillary revenue, July 2015

Airlines have, however, developed many other sources of ancillary revenues beyond duty free and travel retail, with the result that on board retail now represents a relatively small share of overall ancillary revenues, and a correspondingly smaller share of total revenues. For example, in 2004, global airline revenues were estimated at US\$369 billion, of which on board duty free and travel retail sales represented 0.50%. By 2014, total airline revenues had risen to US\$746 billion, of which duty free and travel retail accounted for 0.39%.

On board revenue accounts for around 15% of total ancillary revenues for a traditional airline outside the US, and around 10% for a typical major US airline, as shown in Figure 29 below. Sale of frequent flyer programme miles to partner airlines is the largest single revenue stream in the US, and the joint largest for a typical non-US traditional carrier.

Figure 29 Airline ancillary revenue by category, 2013¹⁶



¹⁶ Source: ibid

For non-traditional European airlines, such as low cost carriers, frequent flyer programmes are not a typical element of ancillary revenues. Instead, baggage charges tend to dominate ancillary revenues. Analysis by retail industry analysts¹⁷ suggests that, for example, around 8% of easyJet's ancillary revenue is derived from on board duty free and travel retail, hotel sales and car rental, with around 50% derived from checked bag charges.

Duty free and travel retail in the form of on board sales is estimated to account for around 1% of total revenues from passengers for leading European airlines. For example, easyJet's duty free and travel retail sales in 2014 were estimated¹⁸ at £36-42m, 0.8-0.9% of total revenues for the financial year 2013/14 of £4,527m. British Airways' on board retail sales were estimated¹⁹ at greater than \$100m (£60m) in 2014, which would represent 0.6% of total passenger revenue of £10,452m for 2014.

4.3 Conclusion

On board sales by airlines to their passengers is a well-established duty free and travel retail sales channel. Such retail revenues are a small element of many airlines' overall revenues, but a larger element of airlines' ancillary revenues. Generating revenues from this distributed range of sources enables airlines to offset costs and set lower ticket prices than they would otherwise have to, which in turn contributes to the demand for air travel.

¹⁷ Source: ibid

¹⁸ Source: Generation Research

¹⁹ Source: ibid

5 Duty free and travel retail within the European maritime sector

5.1 Overview

This section describes the role of duty free and travel retail within the European maritime sector. On board duty free and travel retail continues to make a significant contribution to the revenues of many European ferry operators and cruise lines (30-60%, with on board catering, depending on specific company business models).

This in turn helps to sustain their networks of routes and contributes to regional connectivity in certain areas of Europe and thereby to economic growth. The European maritime sector is also an important element of the regional tourism industry, particularly in Scandinavia, where cruise lines make a significant contribution to revenues and employment from tourism.

5.2 Context

Europe's international ferry and cruise line services can be broadly categorised into the following areas of operation:

- Irish Sea, connecting Ireland and the United Kingdom
- English Channel, connecting United Kingdom and France and Belgium
- North Sea, connecting United Kingdom and Netherlands, Germany and Norway
- Baltic Sea, connecting Germany, Scandinavian and Baltic countries, and Russia
- Mediterranean, ferries connecting Spain, France, Italy and Greece, and cruise lines operating widely across the Mediterranean

Duty free and travel retail is an important element of the passenger experience on all of Europe's ferry and cruise services, making use of space and time on board vessels to provide services to passengers. While most ferry services connect EU countries, and so sales on board are taxed, for cruise and ferry services which sail to non-EU ports, and to autonomous regions within Europe with their own tax status²⁰, duty free sales are available on board and in some cases at shops based in port.

Europe accounts for the vast majority of duty free and travel retail and duty free sales in the maritime sector, around 97% in 2013²¹. Sales in that year totalled €1,627 million, with 37 ferry and cruise line operators contributing to these sales.

Average sales per passenger were around €22. Overall sales revenue has been declining slightly over the past decade, at an average rate of 1.3% - revenues recovered by 2012 from the fall caused by the financial crisis of 2008 and 2009, but have since dropped back in 2013 and 2014.

The pattern of duty free and travel retail activity across Europe is illustrated by the identity and areas of operation of the global leading 20 ferry and cruise lines, ranked by their duty free and travel retail sales in 2014 (19 out of 20 of these firms are European). The leading contributors are primarily companies which operate in the Baltic Sea - 8 out of the top 10 companies are based in Scandinavian or Baltic countries.

Rank	Ferry Operator	Country	Region
Sales > €450 million			
1	Tallink/Silja Line - All routes	Estonia	Europe
Sales > €150 million			
2	P&O Ferries	United Kingdom	Europe
3	Viking Line - All routes	Finland	Europe
4	Color Line - All routes	Norway	Europe
Sales > €75 million			
5	DFDS Seaways - All routes	Denmark	Europe
Sales > €68 million			
6	Stena Line - All routes	Sweden	Europe
Sales > €60 million			
7	Scandlines - All routes	Denmark	Europe
Sales > €30 million			
8	Faergen	Denmark	Europe
9	Eckerö Linjen	Finland	Europe
10	Irish Ferries	Ireland, Republic of	Europe
Sales > €23 million			
11	Myferry Link	France	Europe
12	Corsica Ferries	France	Europe
13	Condor Ferries	United Kingdom	Europe
14	Brittany Ferries	France	Europe
15	Birka Line	Finland	Europe
Sales > €15 million			
16	Buquebus	Uruguay	Americas
17	TT-Line - All routes	Germany	Europe
Sales > €8 million			
18	FRS Iberia	Spain	Europe
19	Acciona Trasmediterranea	Spain	Europe
20	Fjord Line	Norway	Europe

²⁰ Such as the Aaland Islands (main port: Mariehamn), an autonomous territory under the sovereignty of Finland
²¹ Source for this section: Generation Research. Sales attributed to region where each operator is headquartered

5.3 Duty free and travel retail contribution to maritime activity

Prior to the abolition of duty free sales on intra-EU travel in 1999, the sales revenue to ferry operators from duty free was a very major component of their overall revenue. It was estimated²² to account for 65% of total revenues on Finnish ferry routes, 40-50% for Swedish, German and UK routes, and around 30% for Danish and Irish routes.

Following the abolition of intra-EU duty free (which resulted in the closure of some routes in Northern Germany and between Sweden and Finland), ferry and cruise line operators have been able to reform their on-board retail offering so that it continues to attract passenger demand, despite the absence of tax-advantaged pricing on most routes. For those Baltic routes where duty free sales are still allowed, some operators have also established duty free shops based in ports (e.g. Scandlines' BorderShops), in order to allow passengers to purchase before and after their journey.

Examples from individual companies highlight the continuing contribution from duty free and travel retail to overall revenues in the passenger transport maritime sector, and hence their contribution to maintaining the current level of connectivity across Europe by sea routes.

5.3.1 Tallink

Tallink is based in Estonia, and operates primarily on Finland-Sweden, Estonia-Finland, Estonia-Sweden and Latvia-Sweden routes. In 2014, Tallink generated €244m revenues from ticket sales, and a further €497m from restaurant and shop sales on board and on the mainland, out of total revenues from all activities of €921m²³. So free and travel retail and catering provided 54% of total revenues, and 67% of the revenues generated directly from passengers.

²² ETRF Issues Paper: Impact of Abolition of Intra-EU Duty Free on Air and Ferry Routes, 1998
²³ Tallink annual report 2014
²⁴ Scandferries ApS annual report 2014

5.3.2 Scandlines

Scandlines operates three ferry routes between six harbours in the Southern part of the Baltic region. It also offers customers a variety of on board catering and retail services as well as land-based retail shops (BorderShops) in the German ports of Puttgarden and Rostock²⁴.

The BorderShops have a close and natural attachment to Scandlines' routes Puttgarden-Rødby and Rostock-Gedser in Denmark. They provide added value to the respective customer segments by offering competitive prices tailored to a Scandinavian audience, with an extensive assortment, variety and depth of retail offering.

With its 8,000m², the BorderShop in Puttgarden is one of the largest border shops in the world, offering more than 4,000 items and a wide range of international and local quality products. BorderShop-Puttgarden serves more than 700,000 customers per year and Scandlines three-hour shopping ticket accounts for about one third of the volume on Puttgarden-Rødby.

The BorderShop in Rostock, which opened in May 2011 and offers a retail space of 1,200 m², has become the preferred stop on the journey home for both buses and cars. The transit concept is fully adapted to travellers who need a short break before boarding the ferry and the retail assortment is continuously tailored to provide added value and to suit the needs of the customers. The BorderShop in Rostock remains a significant component in the strategy of strengthening the Rostock-Gedser route.

In 2014, Scandlines generated revenues of €232m from BorderShops, retail and catering on board. This represented some 46% of the €509m in revenues directly from passengers (including ticket sales). Net revenues from BorderShops and on board retail and catering was €89m, which represented just over 60% of the company's total earnings before interest, tax and depreciation.

5.3.3 Stena Line

Stena Line is a Swedish maritime company (part of the Stena AB group) which operates passenger ferries between Ireland, UK, France, Netherlands, Germany, Sweden, Denmark, Norway, Poland, and Latvia. In 2014, it generated €193m from on board sales to passengers²⁵.

This represented 30% of the total direct revenues of €632m from passengers, including ticket sales. On board sales per passenger were €18.30 in 2014.

5.3.4 Color Line

Color Line is Norway's largest - and one of Europe's leading - companies in the field of short-sea shipping²⁶. The company is now the only Norwegian registered shipping company headquartered in Norway and with Norwegian crews operating international freight and passenger ferry traffic to and from Norway.

The company employs some 2,400 full time equivalent staff. In 2014, Color Line's ships carried just under 4 million passengers. Some 600,000 of these passengers were tourists travelling to Norway from abroad. Annually, tourists travelling on Color Line's services represent approximately 3.5 million visitor days on shore and a total spend in Norway of close to NOK 3.6 billion (€430 million).

This makes up approximately 8% of total foreign tourist expenditure in Norway. The maritime activities of Color Line have a significant and wider impact on the Norwegian economy: the company estimates that each krone spent by a foreign guest on board ship generates approximately NOK 12 worth of consumption on land in Norway, through multiplier effects via the supply chain and the additional employment and demand stimulated by retail activity on board.

5.4 Conclusion

European ferry and cruise line operators continue to generate significant amounts of overall revenue from duty free and travel retail on board and, in a few cases, from their own shore-based shops. While, overall, this is not a growing revenue stream within the region, it remains a valuable complement to - and generates revenues from - passenger ticket sales. Combined with the benefits generated in the supply chain for on board retail, and the connectivity benefits to the countries linked by the ferry services, duty free and travel retail in the European maritime sector plays an important role in sustaining ferry and cruise services and the resulting connectivity and economic activity.

6 Economic impact of duty free and travel retail

6.1 Overview

This section presents available evidence on the direct economic impact of the duty free and travel retail sector, focusing particularly on the European aviation sector which comprises the largest segment by far of duty free and travel retail²⁷.

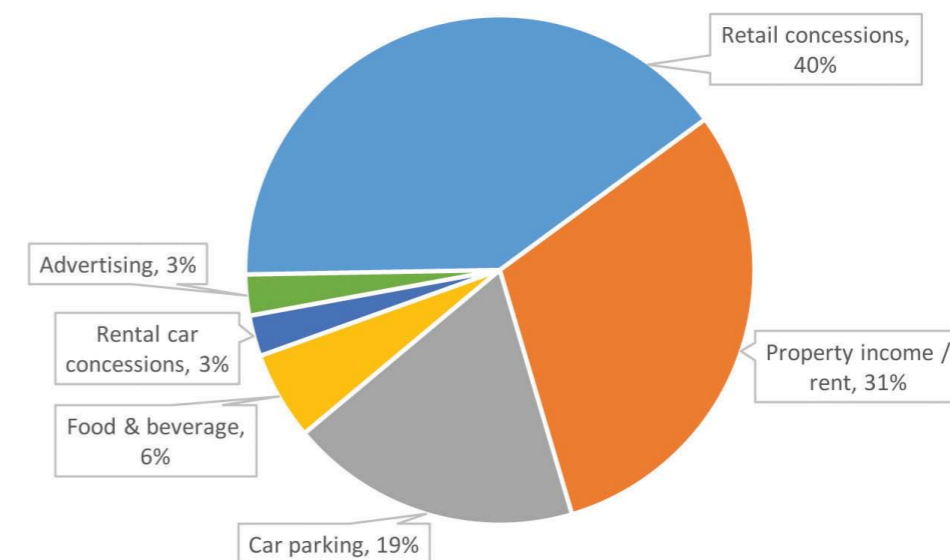
Retail and other in-airport terminal services (such as car hire and food and beverage services) generated around 107,000 jobs in 2013, some 6% of the 1.7 million total direct aviation-related jobs generated at or in the vicinity of airports. In terms of economic impact, the aviation sector as a whole was estimated to generate €102 billion directly, around 0.8% of Europe's GDP in 2013.

Scaling the contribution of duty free and travel retail by its relative employment level within the aviation sector, one can derive an estimate of the direct contribution of European airport duty free and travel retail to GDP at around €6.5 billion, some 0.05% of European GDP.

6.2 Context

In 2013, non-aeronautical revenue accounted for around 40% of European airport revenue from operating incomes (excluding ground handling and other hard to classify revenues). Of this, retail activities generated the largest share, contributing some 40% to non-aeronautical revenues and 16% to overall revenues, as shown in Figure 30.

Figure 30 Non-aeronautical revenue at European airports, 2013



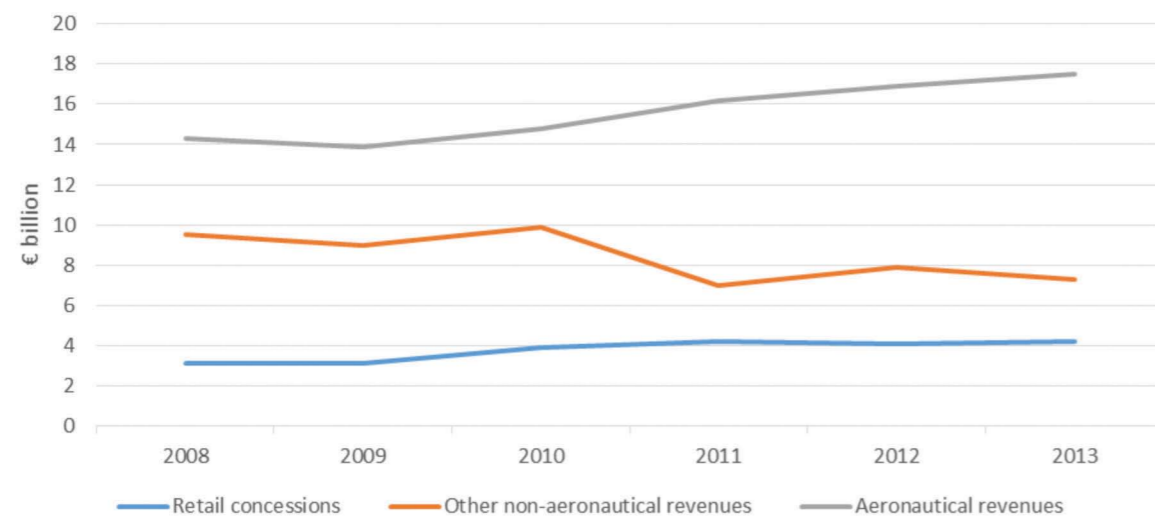
²⁵ Stena AB annual review 2014
²⁶ Color Group annual report 2014

²⁷ Source: unless otherwise stated, data derived from ACI Europe Economics Report 2014

In absolute terms, retail revenues rose to €4.2 billion in 2013, a growth rate of just over 6% each year in the period 2008-2013, faster than the growth in total revenues of 1.5% per year, and the growth in aeronautical revenues of 4.1% per annum over the same period, as shown in Figure 30 below.

In the most recent period, though, the rate of growth in retail revenues has decreased markedly. When compared against the continuing rise in passenger numbers, retail revenues per passenger have been declining, at an average of 4% per annum in the three years to 2013.

Figure 31 Aeronautical and non-aeronautical revenues at European airports



6.3 Employment and GDP impact - evidence from airport analysis

In addition to generating revenues for airports and contributing to the value added by the aviation sector, duty free and travel retail at European airports also makes a significant contribution to employment generation in the sector.

Analysis for ACI Europe²⁸ estimated that European airports provided the platform for generating 1.7 million jobs in 2013, including some 470,000 jobs (28%) in airlines as well as the full range of ground-based jobs at airports. Retail and other in-terminal services (such as car hire and food and beverage services) generated around 107,000 jobs, some 6% of the total direct jobs²⁹, as shown in Figure 32 below. In terms of economic impact, the aviation sector as a whole was estimated to generate €102 billion directly, around 0.8% of Europe's GDP.

Direct Economic Impact

This is the employment, income and GDP associated with the operation and management of activities at the airports including firms on-site at the airport and airport-related businesses located elsewhere in the vicinity of the airport. This includes activities by the airport operator, the airlines, airport air traffic control, general aviation, ground handlers, airport security, immigration and customs authorities, aircraft maintenance companies, and other entities at the airport.

Businesses closely connected to airport activities, but not based at the airport (or only partially based at the airport), such as airline headquarters, logistics operators and air cargo, are also included in the direct impact. These businesses are an integral part of normal airport activities, but are simply located off-site. Therefore, off-airport businesses closely linked to airport activities were also included as part of the direct economic impact.

Indirect Economic Impact

The employment, income and GDP generated by down-stream industries that supply and support the activities at the airport. For example, these could include: wholesalers providing food for inflight catering, oil refining activities for jet fuel, companies providing accounting and legal services to airlines, travel agents booking flights, etc.

Source: Economic Impact of European Airports, InterVistas for ACI Europe, 2015

Scaling the contribution of duty free and travel retail by its relative employment level within the aviation sector, one can derive an estimate of the direct contribution of European airport duty free and travel retail to GDP at around €6.5 billion, some 0.05% of European GDP.

²⁸ Source: Economic Impact of European Airports, InterVistas for ACI Europe, 2015
²⁹ Source: ACI Europe

The employment impact of duty free and travel retail varies primarily with size of airport. Larger airports not only need more staff to serve higher passenger numbers, but with greater demand and more space for facilities, they can provide a greater range of retail services to passengers, which in turn supports a higher level of employment. As shown in Figure 32 below, medium sized regional airports, serving 5-15 million passengers per year, support around 500 jobs directly at the airport in the two sectors, duty free & travel retail and food & beverage³⁰.

The largest airports (more than 40 million passengers) support over 5,000 jobs in these categories. On average, European airports support around 50-90 jobs in duty free and travel retail and food & beverage for every million passengers they handle.

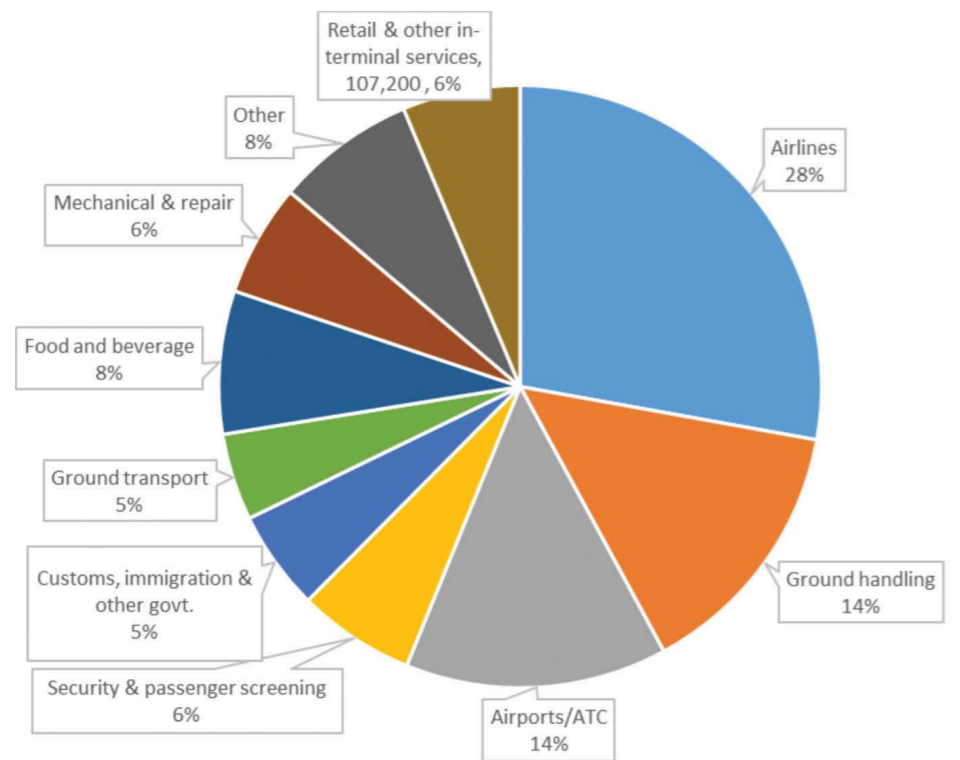
In addition to the direct impact of employment and revenue generation at airports, duty free and travel retail also stimulates activity and employment in the supply chain. As well as sales volume, it also provides a ready-made international customer base for brands and retailers who can use this exposure to develop their export sales more rapidly than through traditional channels. This is illustrated in the case study on Butlers Chocolates, Ireland at Annex 2, which is summarised below.

Increasing exports and employment - Butlers Chocolates

An airport retailing presence can help a company generate brand awareness and overseas market presence. While many airport retailers are already well known, many are not. Airports often choose to showcase local products as a way of providing locally derived souvenirs and gifts for travellers. The resulting exposure to the international market of such smaller firms can assist in broader overseas marketing, both through other airport retail opportunities and wider export activity.

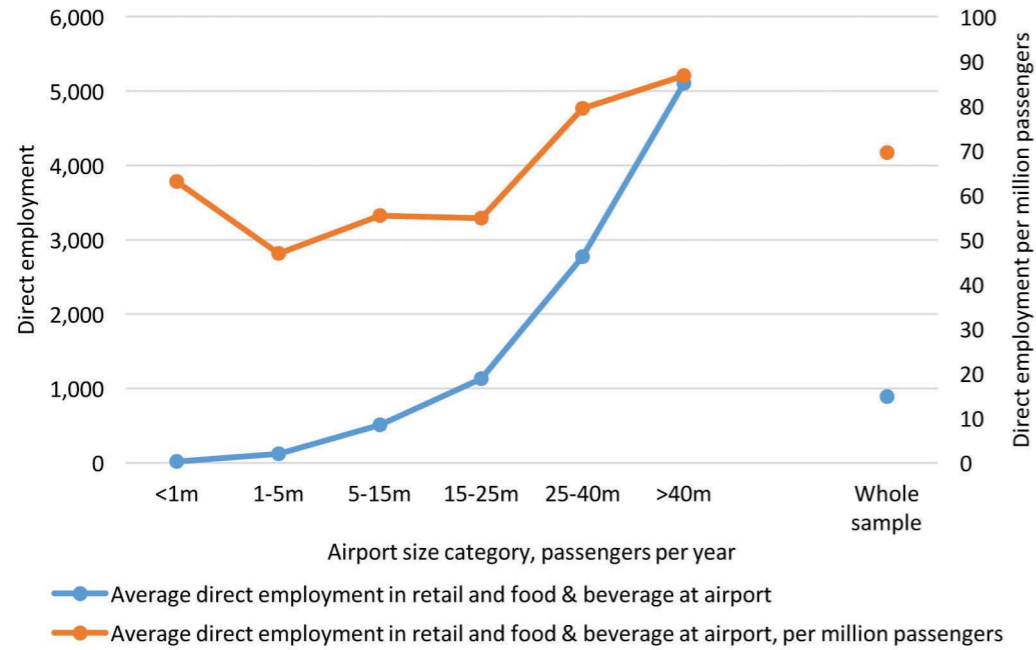
Butlers Chocolates, founded in 1932, focussed mainly on the domestic Irish market for its first seven decades. Following the success of its first retail travel outlet in Dublin Airport, opened in 2000, by 2014 it sold chocolates in 50 airports in 35 countries as part of a broader export and franchising effort which saw exports increase more than fivefold. Since 1999 employment has increased from 170 to 300, mainly focussed on the company's manufacturing and management base in Dublin.

Figure 32 Employment in European aviation sector, 2013



³⁰ Source: ACI Europe

Figure 33 Direct employment in duty free and travel retail and food & beverage at European airports, 2013



Another dimension of duty free and travel retail is the ability it provides to very specialised regional producers to create an international consumer base for their products, which otherwise have remained relatively unknown beyond their home country. This is illustrated in the case study on Bottega SpA, a northern Italian specialist wine producer, at Annex 1, which is summarised below.

Creating an international brand - Bottega SpA

For small companies building an export business can be both difficult and risky. They often need to build both awareness of the product and of the individual brand. Duty free and travel retail can form both an important element of export business, given the current extent of air travel in particular, and help to establish an awareness which assists in broader overseas marketing.

For Bottega, a family-run business specialising in producing and marketing grappa, wines, sparkling wines and liqueurs, duty free and travel retail has been an integral part of its export strategy. The company developed successful products and marketing designed particularly to appeal to the traveller. As a result, duty free and travel retail sales accounted for one third of overall sales revenue in 2014, up from 27 per cent only three years previously. Such sales form a significant proportion of overall overseas sales, with Bottega products sold in 120 countries.

A related aspect of duty free and travel retail is the platform it can provide for smaller producers to develop a brand awareness rapidly and thereby support export sales. This is illustrated in the case study on Rituals, a Dutch retailer of body and bath products, and Annex 7, which is summarised below.

Creating an international brand - Rituals

In very competitive markets, consumer goods often depend on brand awareness and loyalty to promote and sustain sales. Travel retail exposure can help both deepen and broaden brand awareness even where a company has already established an overseas presence. It can complement existing marketing and thereby give further impetus to overseas sales. This is because the travel retail customers will tend to be more prosperous and brand aware than the average and therefore likely both to experiment with new goods and sustain that interest afterwards.

Rituals is a Dutch company specialising in body and bath (and associated) products. By the time it entered travel retail in 2012 it had already established a significant overseas presence. Expansion in travel retail has both added sales (accounting for 4 per cent of total retail sales) and increased market exposure amongst people who, having tried the product, may well seek it out in their domestic market, providing a base for further sales.

6.4 Conclusion

Duty free and travel retail at European airports is a very substantial activity within the aviation sector, contributing around 16% to overall airport revenues, with no associated direct costs to the airport, thereby making an immediate and material contribution to overall profitability.

This activity generates over 100,000 jobs directly, at airports, on average 70 jobs for every 1 million passengers served, and also more broadly in the supply chains, and indirectly supports demand and employment. The following chapters explore in more detail these wider impacts of duty free and travel retail on the European aviation sector and economy.

7 Duty free and travel retail's support for the European aviation economy

7.1 Overview

The aviation sector has grown on the foundation of an infrastructure of airports, well developed in most European regions. The need for an increasingly capital-intensive airport infrastructure for processing passengers creates costs for the aviation sector, not all of which can be recovered economically via aeronautical charges on airlines. But the space within airport terminals, and the time that passengers spend there, also creates opportunities for airports to develop valuable duty free and travel retail businesses which can both serve the passengers' needs and provide financial support to the sector as a whole.

Duty free and travel retail at airports (including duty free shopping where enabled by tax rules) performs two important roles: allowing passengers to use their time at the airport to purchase a variety of goods, and providing a very significant source of revenue to airports which helps to offset the costs of operations and investment. Duty free and travel retail is thus of benefit to passengers directly, of benefit to airlines in the form of moderated airport charges, and of benefit to both passengers and airlines in the long term by providing a source of finance to support airport development.

This section sets out the evidence on the contribution which duty free and travel retail makes to the economics of aviation in Europe, the region which has historically had the strongest links between airport development and duty free and travel retail.

7.2 Duty free and travel retail within the aviation economy

This section describes the particular characteristics of airports, which create both costs which need to be recovered from a diverse range of sources as well as an opportunity to do so in part through meeting passengers' needs as consumers.

Aviation generates value for passengers, cargo shippers and for the economy as a whole through connecting geographic points. The benefits it delivers arise from both the range of these connections (how wide the network is) and intensity of those connections. The demand for those connections derives from centres of population and economic activity, as both origin and destination for travel. It also derives from demand to reach less populated leisure destinations.

As discussed later in this report (in section 8 on aviation's contribution to economic growth), the causal link between aviation and wider economic activity can flow in both directions: growing population centres and larger economies stimulate a demand for wider and deeper air travel networks, and the provision of such networks in turn helps to stimulate the growth of economies which are thus connected by air.

As with other transport networks, aviation requires the provision of a significant static physical infrastructure of airports as the nodes of the network, in addition to the actual fleets of aircraft. While the smallest airport can be a relatively simple configuration of runway and passenger processing area, most air travel is routed through more substantial and complex airports.

The requirement for infrastructure investment arises from economies of scale and scope associated with the runway and other aeronautical assets, as well as the network economies associated with many transport systems:

- a single standard length runway can cater for a wide variety of aircraft types and sizes, so there is a strong incentive on airport operators to generate scale economies by increasing traffic;
- having secured a level area of land for the runway, taxiways, apron and safety zones, most airports then have a surplus of land within the airport boundary, which can most productively be used for aviation-associated activities, such as processing passengers, cargo and/or aircraft maintenance. This creates the opportunity for economies of scope by aggregating such activities at the airport where they can be conducted more efficiently in close proximity to each other;
- where demand for travel on particular routes is relatively thin, air travel can only be provided economically by concentrating such demand on a limited number of flights;
- passengers benefit from more choice of destinations and flight frequency when airports are able to concentrate demand within a particular catchment area so that airlines can efficiently supply such demand. The more passengers attracted to an airport, the more airlines are also attracted to the same location as a base or destination for their services, thus creating network economies.

The characteristics of air travel versus other modes of transport also tend to create demand for significant physical infrastructure at most airports of any size, and for investment on a greater scale than required, for example, at railway stations handling similar numbers of passengers.

For example, London's Charing Cross station handled 40.2 million passengers in 2013/14³¹, through a relatively small concourse giving access to 6 platforms, with limited commercial outlets for passengers (6 shops and 9 food and beverage outlets). By contrast, London Gatwick Airport handled 38.1 million passengers in 2014 via two terminals totalling some 250,000m², of which 27,000m² was devoted to passenger retail facilities, housing some 60 shops. Airports of this size typically provide over 100 retail outlets for passengers³².

Air travel's distinguishing features include:

- greater dwell time at the airport than at rail or bus required at the airport of passengers and their baggage through security, passport and boarding procedures;
- greater dwell time also caused by relative infrequency of flights to specific destinations, high loading factors on each flight, and penalties for changing tickets, which strongly encourages passengers to catch the flight on which they are booked, and which in turn causes passengers to plan to arrive well before boarding time;
- increased dwell time gives rise to demands for terminal space to house passenger facilities such as seating, washrooms and catering services;
- processing of passengers for passport, security and boarding, and handling of passengers' baggage through the airport and onto the aircraft, all require investment in facilities, machinery and buildings to house them. Security costs alone accounted for 16% of total costs for European airports in 2013, while passenger and cargo terminal facilities accounted for a further 16%³³;

³¹ Measured as entries and exits to and from the station - Source: UK Office of Rail Regulation

³² Source: ACI 2013 Airport Economics Report

³³ Source: ACI Europe Economics Report 2014

- greater journey distances and duration of stay gives rise to greater passenger baggage, on average, than seen on rail and bus networks, which in turn creates demand for processing infrastructure;
- location of airports close to motorway networks, enabling easy access by car, with the concomitant requirements for car parking, drop-off zones, and circulatory road systems within the airport boundary;
- bunching of flights at certain peak hours of the day and in peak season(s) means that the flow of passengers through an airport is prone to large peaks and troughs. Given the relatively closed and one-way nature of travel through an airport, it is not possible for excess peak demand for terminal space to be met by spill over into adjacent city areas (as can happen with major rail stations). As a result, airports must scale their terminal facilities to handle safely the predicted peak flows of passengers. Similarly, airports must provide adequate airfield infrastructure (taxiways and stands) to cope with peak aircraft movements.

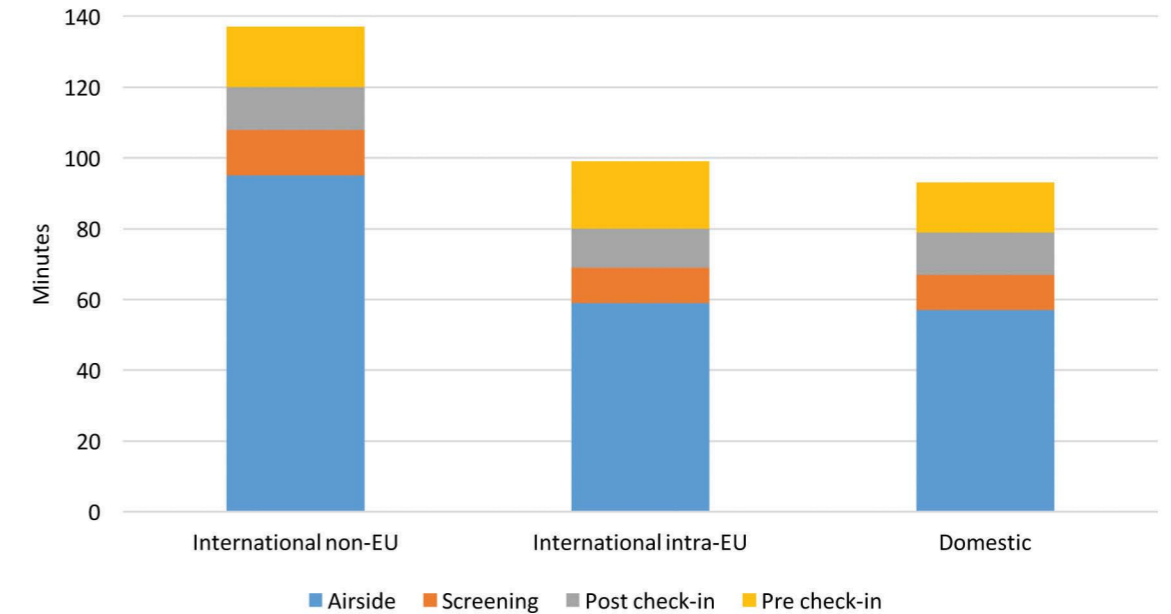
So the specific features of air travel create demands for a wide range of passenger facilities, surface access infrastructure, security and baggage processing equipment.

The cost of this capital infrastructure is typically met from a range of revenue sources: aeronautical charges on airlines for the processing of passengers and the landing and parking of aircraft, and an array of non-aeronautical charges based on the airport's development of commercial activities which are complementary to air travel.

Retail revenues are for many airports, particularly in Europe, a key source of such commercial revenues, which they have been able to generate by attracting passengers to participate in discretionary spending.

The organisation of air travel and the distinguishing features noted above, as well as creating costs for infrastructure and services, also create opportunities for airports to raise revenues and meet passenger needs. The combination of airside dwell time and circulation space provides airports with the scope to develop their retail and food and beverage offering to passengers. As shown in Figure 34 opposite³⁴, passengers of all types of flights (domestic, intra-EU and international extra-EU) on average experience dwell times airside of around 60 minutes, with over 90 minutes for extra-EU international flights.

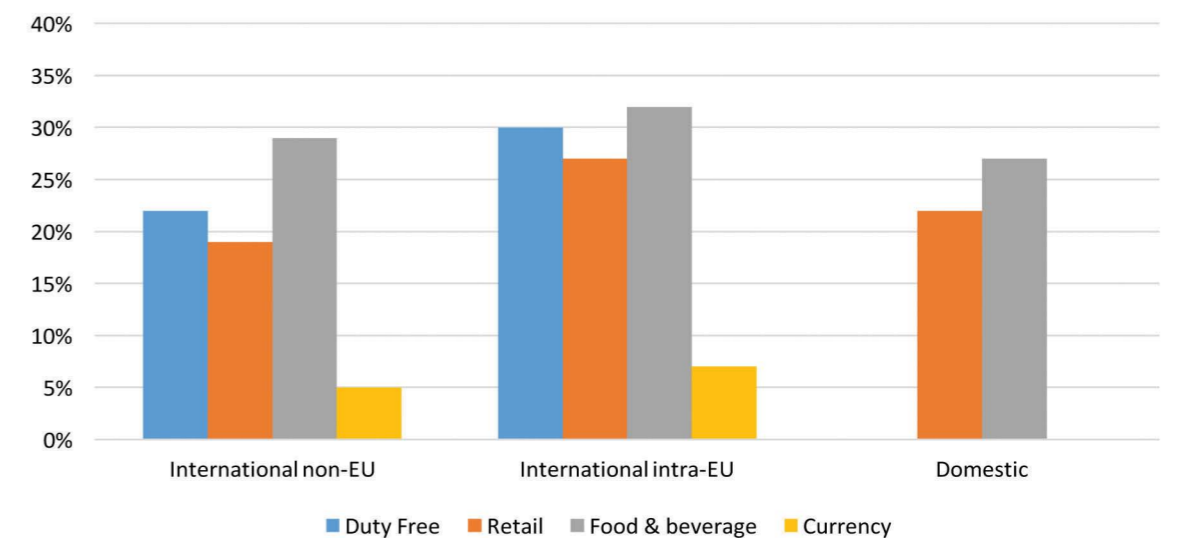
Figure 34 Passenger dwell time



This dwell time is a key factor in enabling airports to convert passengers into customers for their airside retail and catering. On average, around 20-25% of all passengers engage in some retail spending at airports³⁵. For duty free, 22-30% of international passengers make such purchases.

(For intra-EU passengers, such purchases will not be duty free but may nevertheless be attractive in terms of pricing, offers, range and convenience compared to High Street and online shopping.)

Figure 35 Penetration rates - number of passengers making purchase as % of total passengers



³⁴ Source: ACRS Report 2014

³⁵ Source: ACRS Report 2014

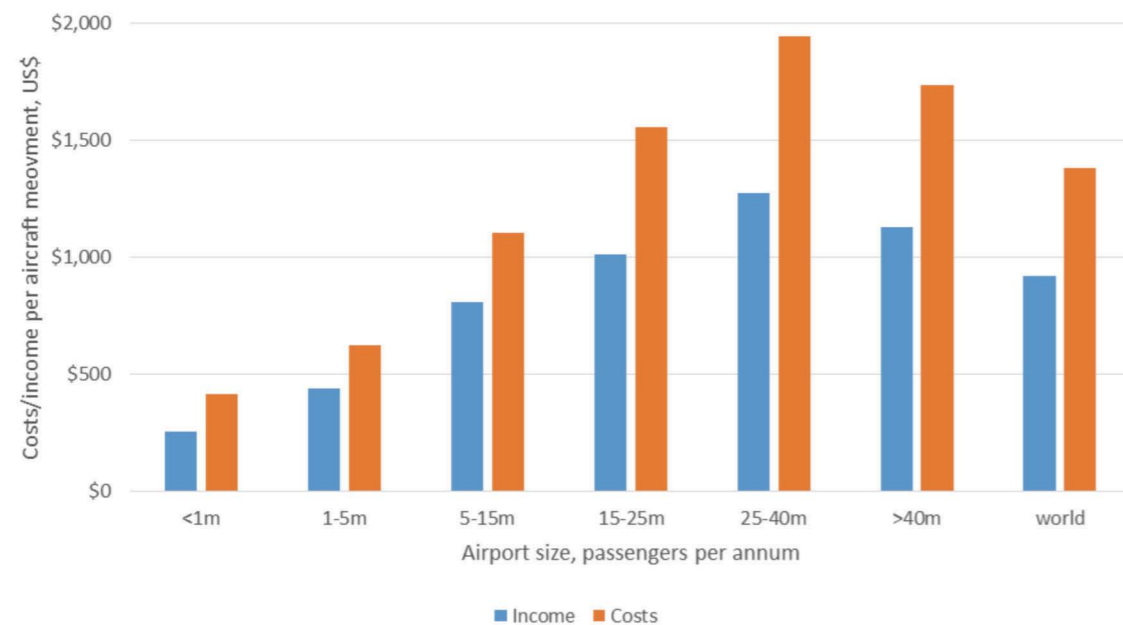
By enhancing the terminal space beyond simply a holding area with seating and washrooms, airports have been able to make passengers' experience more enjoyable and relaxing, while at the same time generating revenues which help offset the overall cost and thus reduce the impact on airlines' own cost base.

Ultimately this benefits passengers through enabling a more extensive route network and more keenly priced air travel than would be possible without the financial contribution of retail revenues to the overall funding of airport services and infrastructure. Revenue from discretionary spending by the many passengers who freely choose to shop can substitute for aeronautical charge revenue, generated from mandatory levies on all passengers.

7.3 Airport economics and the role of duty free and travel retail³⁶

Non-aeronautical revenues are vital to enable airports to bridge the gap between the operating and investment costs of providing the infrastructure and services which airlines require, and the revenues which airports are able to raise from airlines. The scale of this gap, for airports of different sizes, is shown in Figure 36 below. Retail revenues are, in most regions, one of the key elements of most airports' non-aeronautical revenues which help bridge the gap.

Figure 36 Aeronautical income and costs per aircraft movement, 2012

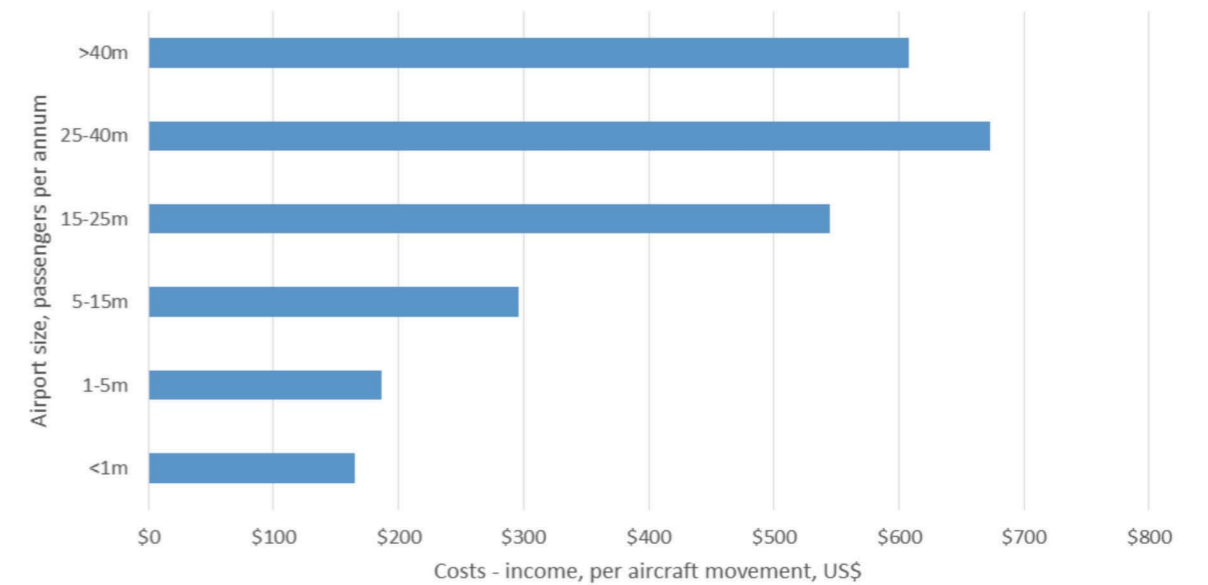


This income gap between aeronautical costs and income is greatest (per aircraft movement) for large regional and small hub airports, in the 25-40m passenger bracket, as shown in Figure 37 opposite.

These airports are likely to have relatively high infrastructure costs but also face most competition from rival airports, which limits their ability to raise aeronautical revenues to cover costs.

³⁶ Source: all data in this section are derived from the ACI Airport Economics Report 2012 unless otherwise stated

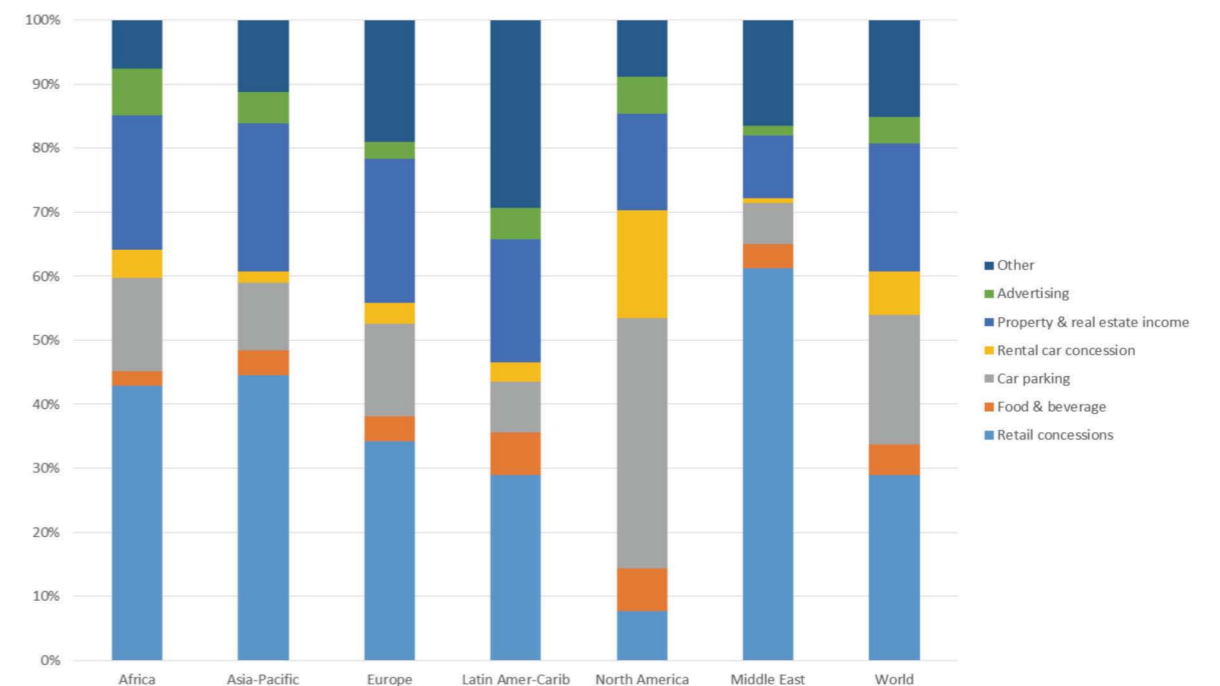
Figure 37 Aeronautical costs and revenue income gap, 2012



As noted above, retail revenues are, in most regions, the single most important element of an airport's non-aeronautical charges.

Figure 38 shows that in Europe and most other regions, except in North America, retail revenues make a major contribution (35% in Europe) to total non-aeronautical revenues.

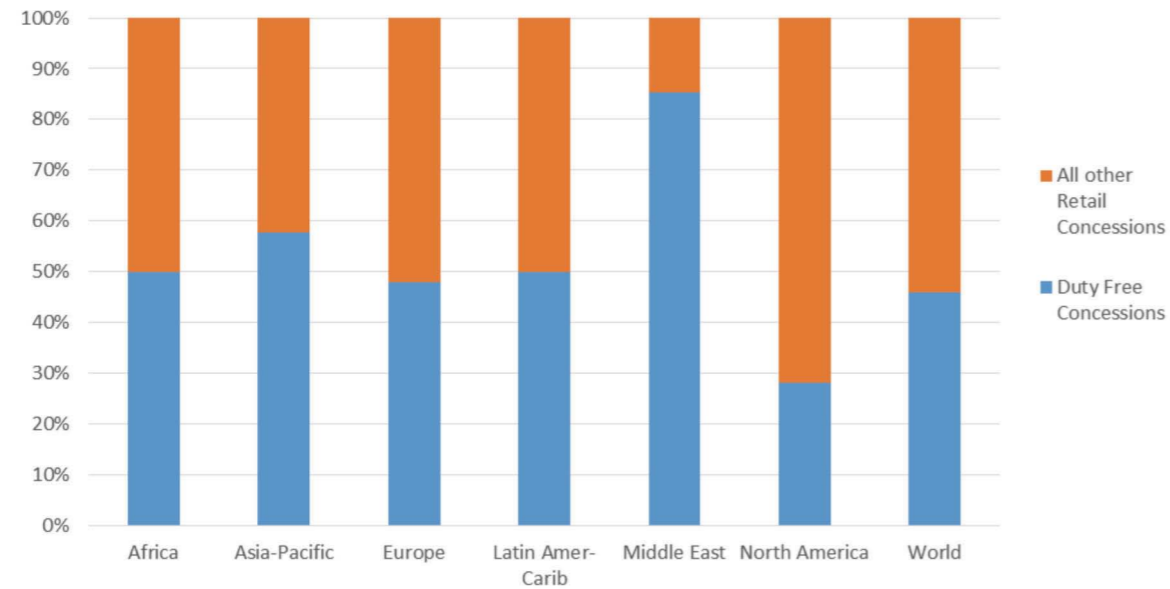
Figure 38 Non-aeronautical revenues, by region and source, 2012



Within the retail revenue category, duty free sales account for around half of all retail sales in Europe and in most other regions.

Duty free makes a much higher contribution in the Middle East, and much lower in North America.

Figure 39 Duty free concession revenue as % of all retail revenue, 2012



The contribution which retail and other non-aeronautical revenues make to airports' financing varies by airport size (see Figure 40).

The most productive airports (in terms of revenue per passenger) tend to be the larger regional and smaller hub airports (handling 25-40 million passengers per year).

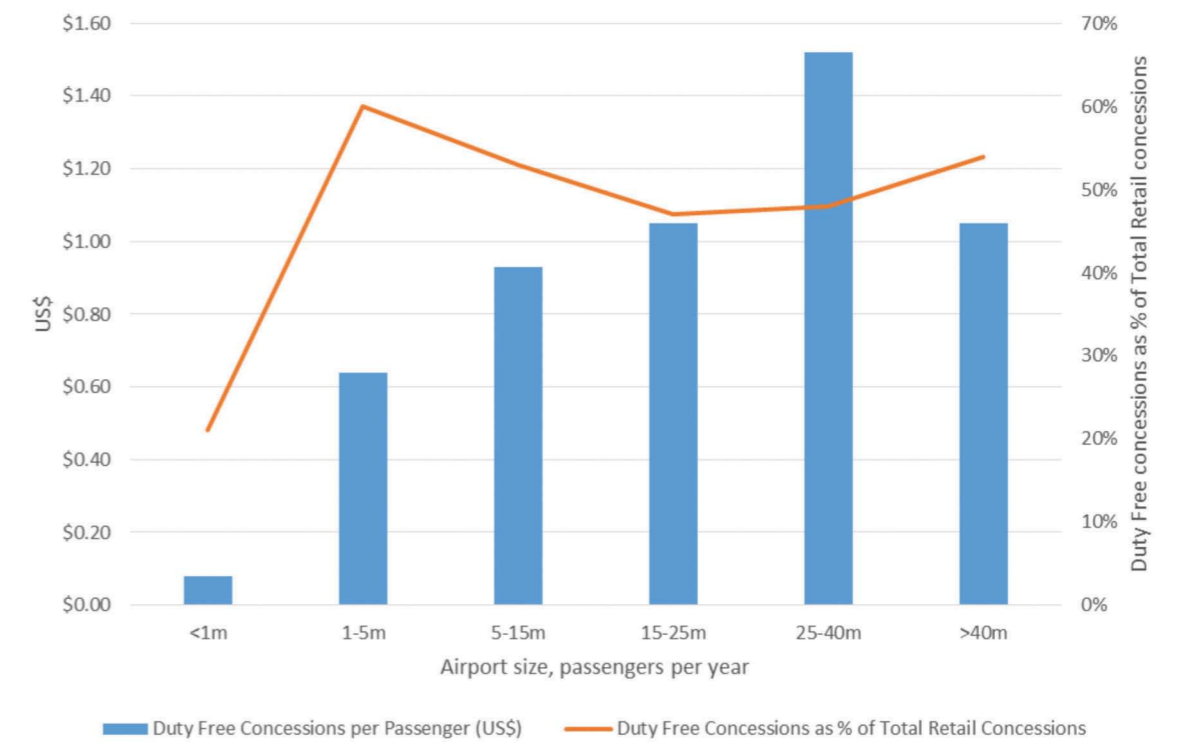
Figure 40 Non-aeronautical income per passenger, 2012



This pattern is also reflected when considering the revenues generated by airports from duty free and travel retail sales. For all but the smallest airports (<1m passengers), duty free and travel retail sales account for around half of all retail revenues, as shown in Figure 41.

Large regional airports (25-40m passengers) are most productive in raising duty free and travel retailing revenue from their passengers.

Figure 41 Duty free income, 2012



7.3.1 Airport competition, enabled by retail revenue

In wealthy societies where shopping is itself a major leisure activity for many, there is clearly potential for the shopping experience itself to form part of the passenger journey. The fact that airport retail has branched out considerably from its duty free origins underlines that point. So it is not surprising that in designing new terminals or improving facilities airports pay close attention to the positioning and impact of retail.

Better retail performance itself can be an important contributor to financing new and improved facilities, and therefore to the resulting enhancement of the airport's competitive position. In some cases, the airport can offer new terminal facilities to passengers and airlines which are largely self-financed through enhanced retail revenues, with limited impact on airport charges³⁷. Airport retail can also be a competitive differentiator for passengers in its own right, as evidenced by the prominence given the issue on many airport web sites. Retail can therefore play a significant role in an airport's quest for passengers.

Single till and dual till

Treatment of non-aeronautical revenues is one of the key aspects of the regulatory debate with respect to airports. The policy question raised is whether those revenues, or at least the net profit from those revenues, should contribute to aeronautical costs. This is commonly referred to as "single till versus dual till" regulation. A dual till approach creates incentives for airports to develop their commercial activities independently of their aeronautical activities.

A single till approach regards all airport revenues as being available for calculating airport charges. Essentially, a single till approach means that the profits on all commercial activities create a subsidy for an airport's aeronautical activities, and thereby for the airlines using the airport.

In contrast, the dual till system divides the airport's aeronautical and non-aeronautical business into distinct income and expenditure accounts. This ensures that the income from the aeronautical side of the business (i.e., landing fees, security costs, passenger charges and departure fees) is used for aeronautical expenditures such as runway repairs and terminal development. This leaves the airport's non-aeronautical income to provide for non-aeronautical expenses (e.g. building new car parks and expanding the retail sections of a terminal) and to generate profits for the operating company.

Hybrid approaches represent a compromise between the dual and single till models. They allow aeronautical fees to be partially subsidized by commercial or non-aeronautical revenues in order to keep regulated tariffs lower than would otherwise be the case.

In 2012, around 40% of airports globally operated under a single till, 47% under dual till, and 13% under a hybrid model. When weighted by traffic, the proportion of traffic handled by single till airports is 31%, dual till 39% and hybrid 29% (source: 2013 ACI Airport Economics Report). Single till price regulation has become less common as airport privatisations increasingly tend to be conducted on a dual till basis. However, even airports that are regulated on a dual till basis may cross-subsidise aeronautical activity depending on the market circumstances they face. Airports which are not price regulated will set their charges according to what the market will bear.

In doing so, they may need to cross-subsidise from commercial activities and thereby effectively operate a hybrid or single till. But that will be a matter for their commercial judgement rather than regulation.

The revenues that airport retail generates also play a part in facilitating airport competition for airlines. The new generation of mobile, point-to-point airlines are focussed on minimizing their own costs, such as airport charges. Such airlines are generally uninterested in each airport's own input costs per se³⁸. They are interested in ensuring that the airport's systems and processes match their requirements for fast plane turnaround times (which may mean lower cost infrastructure). But otherwise they tend to be focussed on the airport charges that they pay.

These prices plus each airline's operational efficiency will help determine whether flying to a particular airport can be sustainably profitable. In these circumstances, airports will be competing to demonstrate not only that demand exists to sustain a viable route but that it can be serviced at a low cost to the airline, which is likely to be comparing offers from airports across Europe. In doing so, the airport will need to take into account all the revenues that it can earn from servicing the new route. The headline charge to the airline is usually likely therefore to be below - sometimes significantly so - the cost of providing its aeronautical services. The greater the retail revenue the airport can expect, the greater the 'cross subsidy' it can potentially provide from retail revenues to aeronautical charges, and the more price competitive the airport will be.

Retail revenues are therefore an inherent part of the competitive dynamic that is increasingly playing out in Europe's airport market. The growth and concentration in the low-cost carrier market means that many more European airports are facing greater effective competition and much stronger buyer power from one or two airlines.

This issue was analysed in the recent airport competition report for ACI Europe³⁹ which found that airline concentration was most focussed among airports with more than 25 million passengers and amongst those with fewer than 5 million passengers (although a substantial minority of the small to medium airports - 5-10 million passengers - also face a sizeable single airline concentration).

43% (81 in total) of the smallest airports⁴⁰ face a largest airline customer with more than 50% of the airport's traffic, and 73% (137) of these airports face a largest customer with more than 40% of traffic. For small-medium airports⁴¹, there is on average a more balanced share of traffic between airlines: 25% (8) of these airports face a single airline with more than 50% of traffic, while 38% (12) face a largest customer with more than 40% of traffic.

Amongst the largest airports, the concentration is explained by the presence of a hub airline which may wish in the long term to grow its core business at that hub airport: the dependence is therefore to some extent mutual, as the main hub airline relies on the airport as the base for its business and, in part, its brand.

³⁸ The exception to this general rule can occur where the airport is subject to some form of cost-based price cap regulation, in which case airlines may engage in regulatory debate around the airport's cost base.

³⁹ Source: Airport Competition in Europe, Copenhagen Economics, June 2012

⁴⁰ Category 4, less than 5 million passengers, 188 airports

⁴¹ Category 3, 5 to 10 million passengers, 32 airports

³⁷ For example, the new terminal redevelopment project at Stansted Airport (Terminal Transformation Project consultation document – March 2013), and Gatwick Airport's expansion of the North Terminal departure lounge (Revised Business Plan to 2024, January 2013)

At smaller airports there is greater likelihood that the single dominant airline is a low cost carrier and the dependence tends to be one way - an airport, with high fixed and sunk costs and limited scope to diversify activities, will be dependent on an airline with the scope to switch significant capacity to elsewhere within its network, and thereby able to exert buyer power in negotiations with the airport.

In summary, the greater competition between airports to attract airlines provides direct benefits to passengers in terms of competitive air fares and greater range and diversity of services. Passengers are effectively part of this virtuous circle - discretionary passenger spending in airport retail helps to provide the financial support to enable the airport to offer better commercial terms to airlines, which in turn delivers more competitive choice for passengers.

One example of this phenomenon is illustrated by developments at London Stansted Airport in the UK, where new terminal infrastructure, to the benefit of passengers and airlines, was financed from retail revenues rather than additional charges. This is illustrated in the case study at Annex 6, summarised below.

Using retail revenues to fund investment and improve competitive positioning - London Stansted Airport

Airports face competitive pressures from other airports and airline customers to keep charges low. At the same time, they need to invest to improve airport operations and to provide an attractive environment so as to retain and increase passenger numbers. For many airports, designing facilities so as to improve retail revenues can contribute significantly to investment business cases and therefore enable or bring forward investment that would otherwise not be affordable.

For some projects with a high retail component, the ability to improve retail revenues can even make the investment self-funding, so improving operations and passenger experience without adversely affecting the airport's competitive position on charges.

Stansted Airport needed to redesign its facilities to cope better with the changes to the operating practices of its low cost airlines. Their discouragement of hold baggage and development of on line check-in had reduced the amount of space required for check-in whilst also leading to passengers spending more time airside. This created the opportunity to reconfigure the airport to support improved security processing and more space (and retail activity) airside.

This has been done in a way that improves the amount of space and seating for passengers, assists airline operational performance by moving passengers through to the departure lounge (with improved passenger information) and enables more retail income from larger, better designed retail space. As a result, the business case for this £38m terminal transformation project was for its cost to be met from enhanced retail revenues. Stansted's overall competitive positioning is improved through increased attractiveness to passengers at no additional cost to airlines.

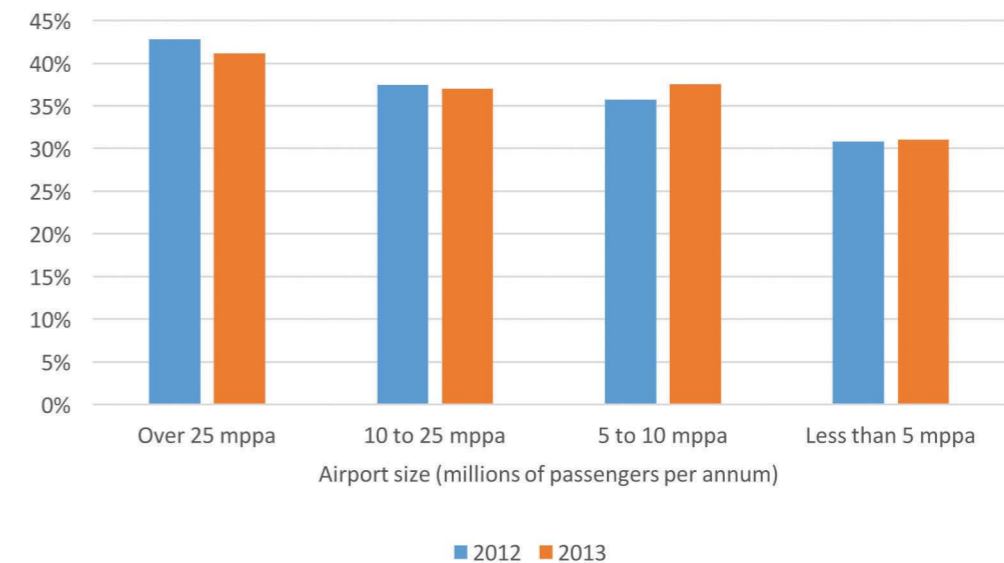
This supports its ambition to grow passenger numbers towards 35m per annum following the significant reduction seen during the recession.

7.3.2 Retail contribution to European airport revenues

Retail activity varies significantly across the size spectrum of airports, both in scale and in revenue per passenger. The following charts illustrate the relationships between airport size, retail revenues and total revenue and profit⁴².

Airports are categorised into size bands (using millions of passengers per annum - MPPA - as the metric). In general, larger airports are able to generate a greater share of their total income from non-aeronautical sources overall (Figure 42).

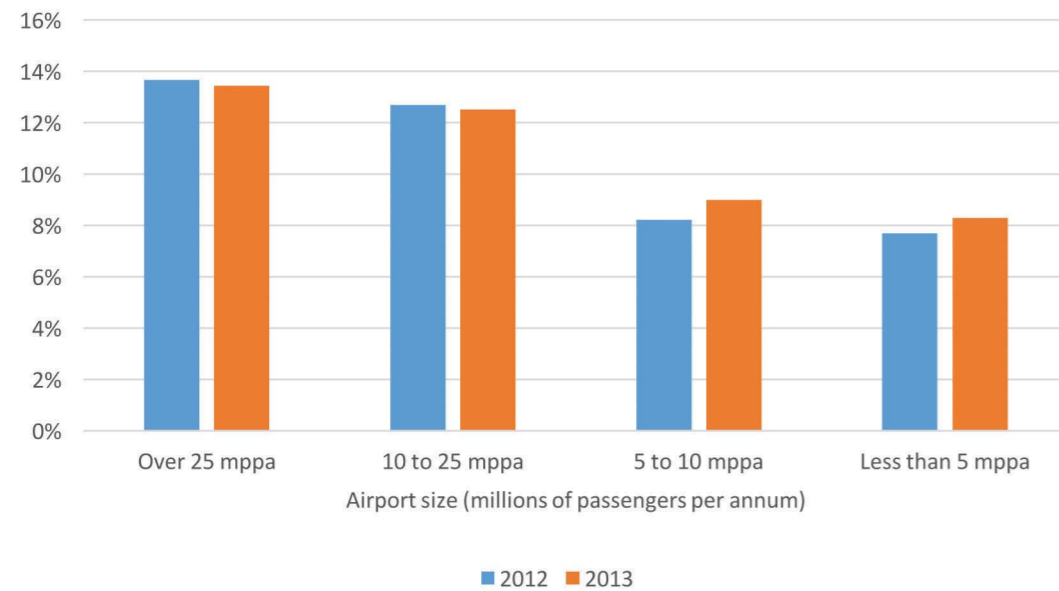
Figure 42 Operating non-aeronautical income as a % of total operating income, European airports



⁴² Charts in this section are based on data from ACI Europe surveys of around 140 European airports. Arithmetic means of each size category are reported, as % of net profit, except for retail concessions, where median figures are reported, as the mean tends to be distorted by large absolute values which do not represent the typical range within each size category.

This pattern is also reflected in retail performance specifically. Larger airports are, in general, able to generate a greater share of their total operating income from retail activities (Figure 43).

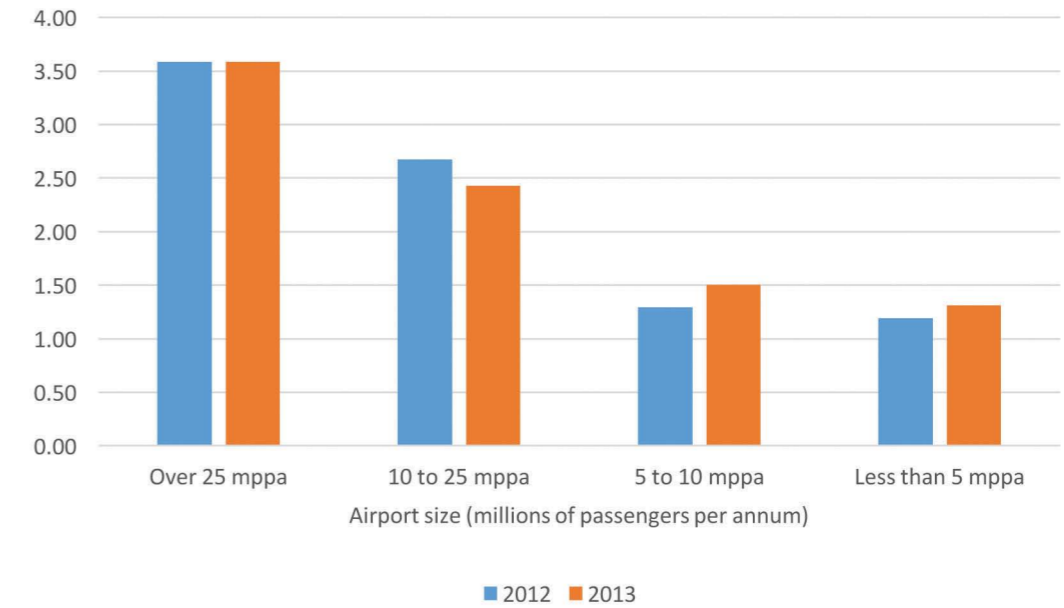
Figure 43 Retail concessions income as a % of total operating income, European airports



With regard to retail income per passenger, there are three distinct categories of airport. The largest airports (more than 25 MPPA) are able to generate retail revenues of around €3.5 per passenger. The middle group of airports (10-25 MPPA) generate around €2.5 per passenger.

The smallest airports (less than 10 MPPA) only generate around €1-1.5 per passenger (Figure 44). The average retail income per passenger, across European airports of all sizes, was €2.4 in 2013, down from €2.5 in 2012.

Figure 44 Retail concessions income per passenger, European airports



7.3.3 Retail contribution to profitability

Such revenue generation from retail activities is a vital component of the overall profitability of most European airports, and thereby plays an important role in their continuing ability to finance investment in infrastructure. European airports, as a whole, reported positive earnings before interest, tax and depreciation of €15.7 billion in 2013⁴³, up 1.4% on 2012, and overall net profits of €3.6 billion, up 36% on 2012. These measures of financial margins do not, however, fully capture the return on capital investment over time.

It is this measure which is key to the future financial health of the European airport sector: unless airports can generate healthy returns on invested capital, they will struggle to raise fresh capital for the future investments that will be required to meet Europe's developing capacity shortage⁴⁴.

According to ACI Europe, in 2013 European airports reported a pre-tax Return on Invested Capital (ROIC)⁴⁵ of 6.8%. This is broadly in line with the corresponding cost of capital for airports, which is estimated between 6-8%⁴⁶. European airports as a whole covered their costs in 2013, after having reported an economic loss in the previous year, with ROIC of 5% below their cost of capital. Within Europe, though, EU airports recorded an average ROIC of just 5.7% while Eurozone airports recorded an equivalent result of just 5%. This reflects in part the weaker trading conditions to which these airports were subject.

⁴³ Source: ACI Europe Economics Report 2014

⁴⁴ Eurocontrol, Challenges of Growth 2013: Summary report

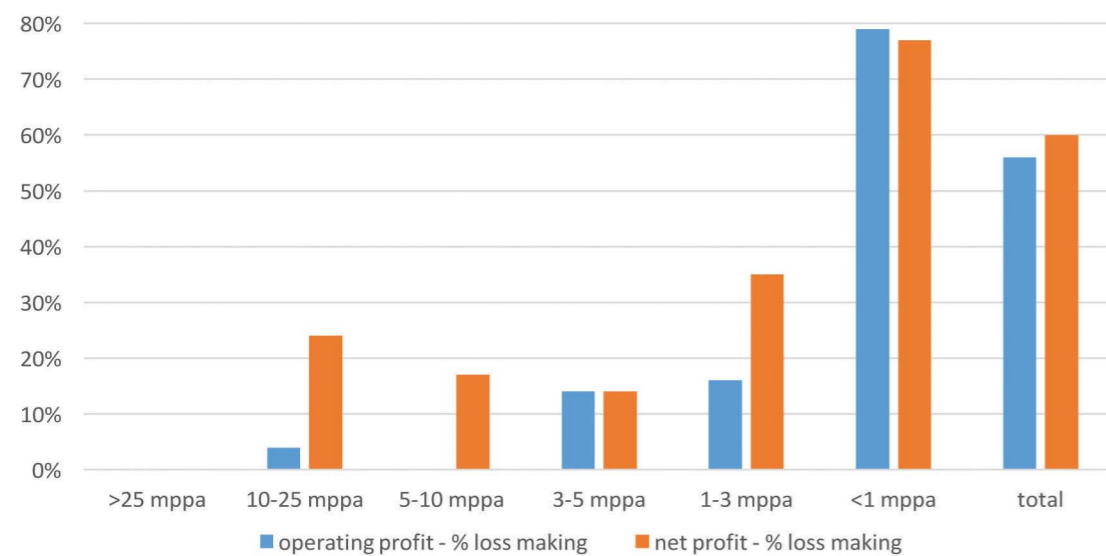
⁴⁵ Return on Invested Capital = (Net Profit + interest expense) / (Net Assets + non-current liabilities).

⁴⁶ Source: Profitability and the air transport value chain, IATA, June 2013

The result of overall industry profitability at the European level, albeit at a relatively low return on capital, sits alongside the fact that most smaller regional airports are structurally unable to cover their costs. These airports have no pricing power, limited ability to generate non-aeronautical

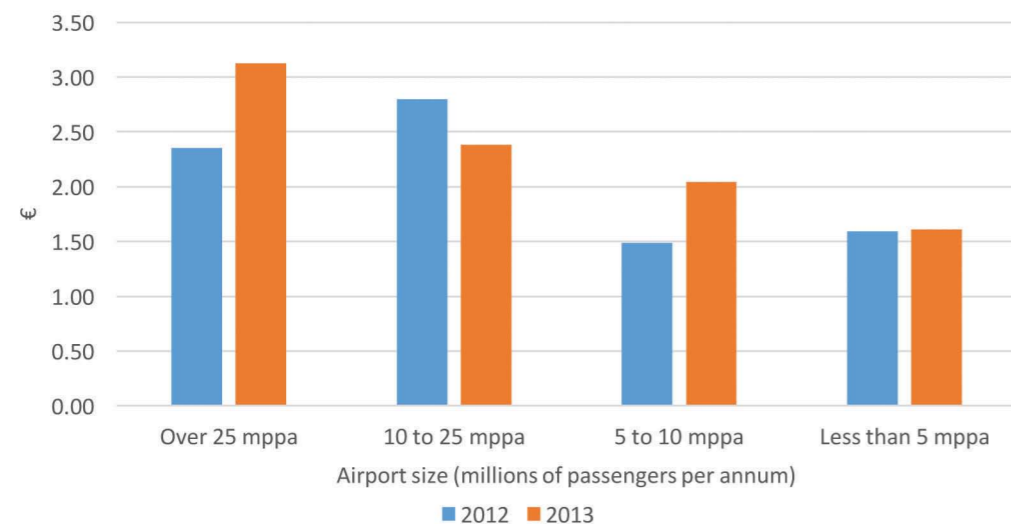
revenues, and high fixed capital and operating costs which cannot be spread across a wide traffic base. In 2013, 56% of airports made an operating loss (i.e. negative EBITDA) while 60% made a net loss, as shown in Figure 45 below. This compares to equivalent figures of 54% and 62% in 2012.

Figure 45 % of loss making airports by size, 2013



The pattern of profitability by size of airport for previous years is shown in Figure 46 below.

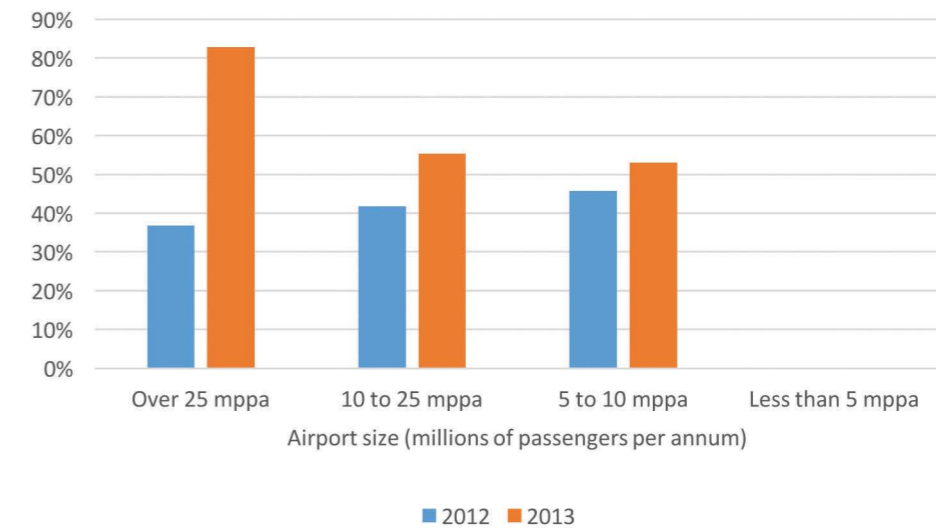
Figure 46 Average Net Profits per Passenger, European airports



Against this background of relatively narrow financial margins, the positive contribution from retail revenues is a key component in the financing of European airports. In most airport size categories, retail revenues account for a very large proportion of the overall net profit per passenger.

This is particularly so for the medium to large airports, where for those airports operating a single or hybrid till, the high retail revenues per passenger effectively provide a cross-subsidy to the rest of the airport's aeronautical activities. Even for the mid-scale airports, though, retail revenues typically make up 40-50% of net profit per passenger, as shown in Figure 47 below.

Figure 47 Retail concessions income as % of net profit, European airports



7.3.4 Challenges to European airport retail⁴⁷

While it remains a major contributor to European airport finances and profitability, duty free and travel retail faces a number of significant challenges as the air travel market matures and retailing continues to undergo fundamental changes arising from continuing innovation in and use of online shopping. As noted above (in chapter 3), there is a growing range of factors which appear to be combining to create 'headwinds' against maintaining historical growth rates in airport retailing. ACI Europe recently identified⁴⁸ the following as important constraints: market maturity, shifting consumer behaviour, competition from online retail, off-site parking options, and more restrictive airline cabin bag rules. The growth of air travel, in absolute terms and

across society, has not only widened the range of demographic groups which pass through airports - it has also increased the number of repeat passengers. According to ACI Europe, for airports and retailers, it is increasingly difficult to convey a sense of occasion, or a 'wow-factor' which would otherwise encourage more discretionary spending.

This normalisation of air travel means that airports now face competition not only from other airports, but also from the high street and digital channels. Passengers are increasingly willing to use their time in the airport to browse, but then to complete the transaction at their destination, or after they have returned home.

⁴⁷ Source: ACI Europe Economics Report 2014
⁴⁸ ACI Europe press notice, 25 June 2015

This is just one element of a wider trend which is only set to grow - airport retailing operations are increasingly competing against online sources, with passengers in some cases actually making online purchases on their mobile device, in the airport shops, after having selected their product from the airport's range. Indeed, airports are in some way facilitating this trend, as wider inter-airport competition has required operators to introduce free wi-fi at many airports across Europe.

However, online retail websites combined with the very widespread use of smart phones can also assist airport retailing. According to a recent study⁴⁹, digital devices (particularly smartphones) are becoming a powerful way for consumers to connect to physical stores, rather than simply bypassing them for pure online retailing - 71% of in-store shoppers say that their smartphones have become important to their in-store experience, 42% of shoppers search for information while in store, and 64% look for online recommendations.

For instance, passengers can confirm that airport stores do represent value for money (by using online price comparisons), and then use time at airport for the in-store experience. Geo-targeting can direct passengers to specific stock in specific stores within an airport retail space. In this way, smartphones can become personal shopping assistants, helping to guide passengers to purchases at the airport.

Airports also face challenges within the wider aviation sector, both commercial and regulatory. These include the potential for airline restrictions on cabin baggage and regulatory constraints on sales of certain goods. The 2013 report⁵⁰ for the European Travel Retail Confederation on on-board carriage of duty free and travel retail showed the extent to which baggage restrictions could harm retail sales, with uncertainty affecting even airports where restrictions were not in place.

Other regulatory challenges facing the sector include EU food labelling rules, where requirements for consumer product information in the language most easily understood in the country of sale (sometimes interpreted as the national language) will create considerable logistical difficulties for unified pan-European supply chains. This could undermine one of the key operational efficiencies of the European duty free and travel retail sector, resulting in lower yields for airports and potentially reduced range of food products on sale at airports.

7.4 Conclusion

Duty free and travel retail revenue, along with other sources of commercial non-aeronautical revenue, enables European airports of all sizes to bridge the gap between their earnings from airlines, in the form of aeronautical charges, and their infrastructure and operating costs. This supports a broader and deeper network of airports, and the air travel connectivity that they in turn support, than would otherwise be the case if Europe's airport infrastructure were funded by airport charges alone.

The mutually beneficial relationship between duty free and travel retail and European air travel has enabled the aviation sector to expand to provide valuable connectivity between European regions, which underpins a significant element of the European economy, as discussed in the following chapter.

8 Aviation's contribution to economic output and growth

8.1 Overview

Duty free and travel retail contributes significantly to the financial health of airports and thereby to European air travel network which they sustain. Air travel in turn contributes to national and international economic growth, both directly as a source of value added employment and indirectly, as a catalyst enabling many other sectors to thrive through trade and travel facilitated by airlines.

Aviation is a relatively high productivity sector, the output of which is increasingly valued by individuals and businesses, and which makes a direct contribution to improving the productivity and hence growth potential of other parts of the economy.

Airports are the platforms for the whole of aviation's economic contribution, and so by contributing directly to the financial health of the airport sector, duty free and travel retail is an important part of the foundations of the aviation sector as a whole. This section highlights the channels through which aviation contributes to economic output, consumer welfare, and economic growth. It summarises available evidence from recent studies on the impact of aviation on the wider economy.

8.2 Introduction

There are three primary channels through which the aviation sector contributes to national, regional and global economies:

Economic footprint of sector:

- Direct impact of gross value added, employment and tax revenues generated within the aviation sector;
- Indirect impact of gross value added, employment and tax revenues generated in sectors which are closely connected in a supply chain to, and stimulated by, activity in the aviation sector. This impact is measured by using Input-Output analysis of each economy, which measures the extent to which the output of one sector is dependent upon the inputs from other sectors.

Welfare benefits to consumers and producers:

- This captures the additional value to consumers of air travel, over and above the value expressed in the market prices paid for aviation services.

Supply side effects:

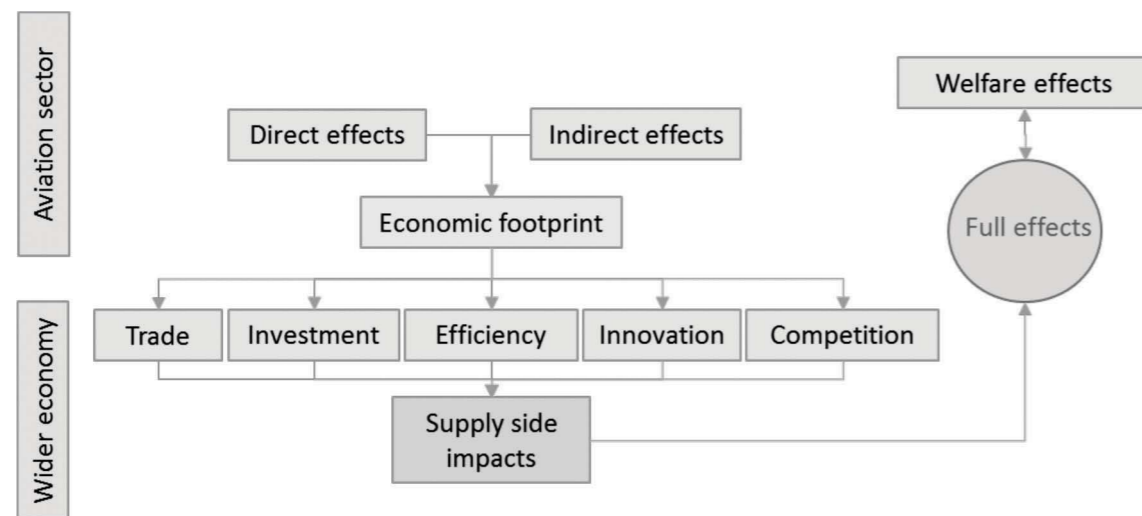
- These are the positive impacts which air travel has in enabling other sectors of the economy to improve their productivity levels, and indeed enabling the economy as a whole to shift resources to more productive uses.
- The channels through which aviation can stimulate the wider economy include:
 - Trade
 - Investment
 - Efficiency
 - Innovation
 - Competition

The relationships between these impacts within the aviation sector and the wider economy are illustrated in Figure 48 overleaf.

⁴⁹ Google Research study of 6000 customers in 2014

⁵⁰ Source: The economics and regulation of on-board carriage of European airport retail sales, a policy research study for the European Travel Retail Confederation, September 2013

Figure 48 Economic effects of the aviation sector⁵¹



In addition, there is a further effect caused by wages generated in the aviation sector, and in its supply chain, being spent in the wider economy, which creates demand and employment. This effect is known as the induced impact, and is measured in some sectoral economic impact studies. However, the sum of the direct, indirect and induced impacts from all sectors in an economy would exceed the gross value added of the economy as a whole.

Hence, the induced effect of spending generated by wages earned in the aviation sector is not generally viewed as part of a meaningful measure of a sector's economic impact.

8.3 Economic footprint of the aviation sector

The aviation sector comprises three main sub-sectors:

- Airlines and air couriers
- Aircraft service providers
- Airport service providers

In national statistics, the gross value added (GVA) of aviation is typically recorded at the level of the 'Air Transport' sector as a whole, without distinguishing the separate contributions of the airports sub-sector. Aviation also includes 'Supporting air transport activities', which would include ground-based airline and airport service providers. Most recent studies at national and regional levels have estimated the economic footprint of aviation as a whole.

8.3.1 UK

As an example of a large developed European economy, we summarise the key results of a couple of recent studies into the economic footprint of the UK aviation sector.

A study conducted in 2009 by the Oxera consultancy for the UK Airport Operators Association⁵² reached the following conclusions:

- **Gross Value Added:** the aviation sector accounted for around 2.2% of the GVA of UK economy as a whole in 2007, of which 0.7% of GVA was generated in the aviation sector directly, and 1.5% generated indirectly in the aviation supply chain.
- **Employment:** the aviation sector directly provided 0.5% of total UK employment, and a further 0.35% of total UK employment was provided indirectly in the supply chain.
- **Sector productivity:** employees in aviation are on average 35% more productive than across the UK economy as a whole (as measured by GVA per employee).
- The economic footprint of aviation in the UK increased by 8.3% in real terms in the period 1995-2007. As a share of UK-wide GVA, though, aviation's contribution fell from 1.9% in 1995 to around 1.5% in 2007.

A study conducted in 2011 by the Oxford Economics consultancy for the International Air Transport Association (IATA) started with a significantly broader definition of the aviation sector:

- Airlines transporting people and freight
- Ground-based infrastructure that includes the airport facilities, the services provided for passengers on-site at airports, such as baggage handling, ticketing and retail and catering services, together with essential services provided off-site, such as air navigation and air regulation.
- Aerospace manufacturing that builds and maintains aircraft systems, airframes and engines.

Stripping out the data for the aerospace manufacturing sector, in order to make the results of this study directly comparable to those of the earlier Oxera report, this report for IATA finds the following:

- **Gross Value Added:** the aviation sector accounted for around 1.4% of the GVA of the UK economy as a whole in 2009, of which 0.8% of GVA was generated in the aviation sector directly, and 0.6% generated indirectly in the aviation supply chain. Airports and other ground-based services accounted for 0.9% of the GVA from the sector, directly and indirectly, while airlines generated 0.6%.
- **Employment:** the aviation sector provided 1.4% of total UK employment in 2009, of which 0.7% of total UK employment was direct and a further 0.6% was provided indirectly in the supply chain. Airports and other ground-based services accounted for 0.9% of total UK employment, directly and indirectly, while airlines generated 0.5%.

⁵¹ Source: What is the contribution of aviation to the UK economy? Report for the Airport Operators Association, Oxera, 2009

⁵² Source: Oxera 2009

IATA has published similar country studies from Oxford Economics on a range of other European economies, and on other countries' aviation sectors in other regions.

8.3.2 Europe

A study conducted in 2014 for ACI Europe by the InterVistas consultancy⁵³ found the following:

- **Gross Value Added:** the aviation sector accounted for around 1.0% of the GVA of the European economy⁵⁴ as a whole in 2013, of which 0.6% of GVA was generated in the aviation sector directly, and 0.4% generated indirectly in the aviation supply chain.
- **Employment:** the aviation sector directly provided 0.6% of total employment within the European Union, and a further 0.4% of total EU employment was provided indirectly in the supply chain.
- **Sector productivity:** Over the entire region, the average income per job was found to be:
 - Direct Job: €40,400 per annum.
 - Indirect Job: €29,500 per annum.
- The average income for employees directly involved was significantly higher than the average income per job in the wider economy, at both a European and an individual country basis. This primarily reflects the large numbers of high skilled positions that are supported by airport activity. The average income of employees involved in indirectly airport-related activity was lower than the direct income, but still above the national average. This reflects the specialised skills involved in some elements of aviation supply, such as airframe assembly, but also the wide range of more typical jobs experienced in the wider economy, which many sectors depend upon.

8.4 Welfare effects

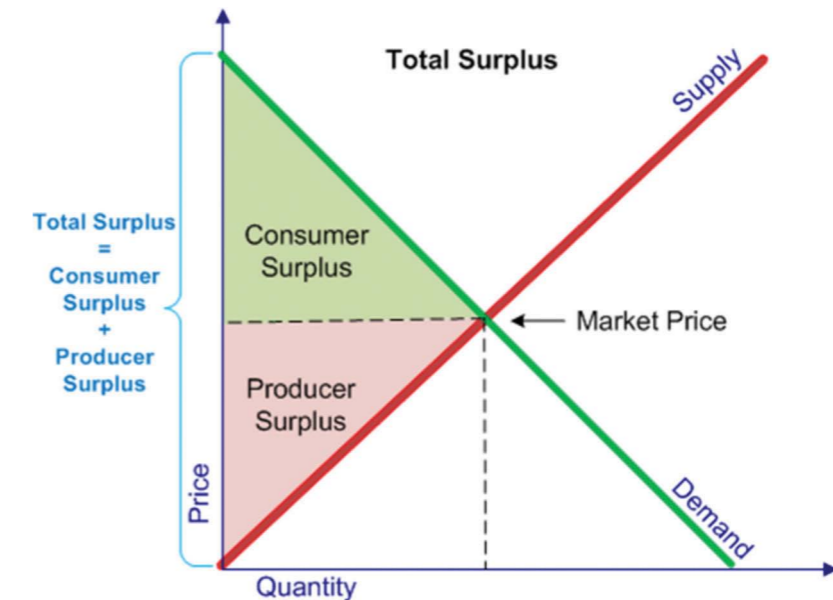
GVA only imperfectly captures the overall value of the aviation sector's services to customers. The welfare effect measures this consumer surplus, essentially the difference between the value placed on a service by the consumer and the price paid in the market, plus the producer surplus, the excess of the price received by the producer less the cost of supply, as illustrated in Figure 49 opposite.

In a well-functioning competitive economy, consumer benefits are typically considerably higher than producer benefits, which are constrained over time by competition within and between sectors. This is particularly true during a period, such as the decade from the mid-1990s, when rapid changes in aviation practices and technologies (e.g. growth of low cost carriers, online ticketing) resulted in rapid declines in the relative price of aviation compared to goods and services in the rest of the economy.

The absolute level of consumer surplus has been estimated by IATA⁵⁵ for flights in and from the European Union. Net consumer benefit within the EU from international and domestic flights in 2011 was estimated at €102 billion, around 0.8% of EU GDP. This welfare benefit is in addition to the economic impact (direct and indirect) of around 1.0% of GDP. Net consumer benefit per passenger per flight was estimated at €113, which was just under 50% of the average single leg consumer fare of €240. In other words, consumers on average attach a value to a flight of nearly 50% higher than the cost of the air fare.

In terms of producer surplus, IATA estimates that total producer surplus from the aviation sector in the EU in 2011 was around €9.4 billion, some 0.07% of EU GDP, and around 10% of the level of consumer surplus from aviation.

Figure 49 Welfare effects - consumer and producer surplus

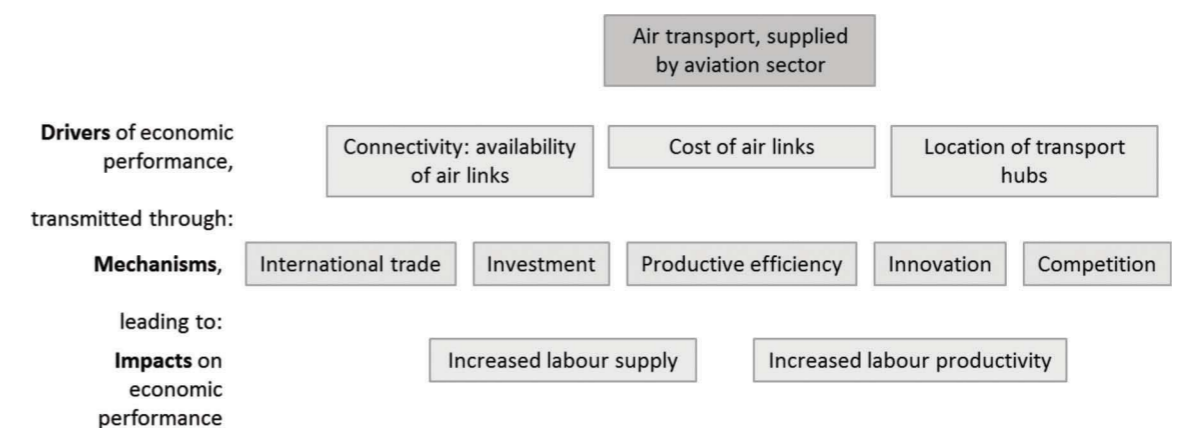


8.5 Supply side or catalytic effects

Aviation has a broad and deep impact on how other sectors of the national and international economies are able to organise and interact. In the long run, it is this impact, outside the aviation sector itself, which is likely to have the greatest positive impact on the economy as whole, by enabling productivity growth in many sectors.

This relationship between aviation and economic growth is a complex one, involving a number of drivers from the aviation sector to the wider economy and a range of transmission mechanisms, which in turn lead to long term impacts on the economy. These are illustrated in Figure 50 below.

Figure 50 Supply-side or catalytic effects of aviation⁵⁶



⁵³ Source: Economic Impact of European Airports, InterVistas for ACI Europe. 2015

⁵⁴ ACI Europe members, including EU28, EFTA countries and others (notably Russia, Ukraine, Turkey, Israel)

⁵⁵ The value of an average passenger flight in the EU-27, IATA Economic Briefing, September 2013

⁵⁶ Source: Oxera 2009

As a result of this complexity, the level of the catalytic impact and direction of causality between aviation and the economy is subject to some debate in the economic literature. Historically, aviation demand has tended to grow in line with or faster than GDP.

But it is open to debate how far aviation growth has been generated by general economic growth, which gives rise to demand for air travel, and how far aviation itself has created the conditions for growth more broadly.

8.5.1 Aviation drivers of economic performance

The availability and cost of air links and the location of airports from which they can be accessed are the key drivers of economic performance stemming from the aviation sector. These factors can help boost growth, as follows:

- **Greater connectivity:** with more air links from one country to others, the overall cost to passengers and freight shippers of reaching their final destination, including the surface transport costs at either end of the flight, and the savings in time costs from greater frequency of flights, should fall. Connectivity gains are equivalent to a fall in air transport costs, which in turn make it cheaper to connect to new markets and to boost supply chain productivity.
- **Reduced cost of air travel:** this enables producers to bring products to more distant markets more cheaply than hitherto, thereby increasing competition, and allows greater economies of scale in production which serves a wider market. Supply chains can be organised to benefit from the most efficient sources of inputs, which in turn enhances productivity.

- Location of air transport hubs: major airports provide a natural geographical focal point for industries which are closely connected to international supply chains. The clustering of firms and the labour force around such hubs can in and of itself bring productivity gains through the more rapid diffusion of best practice, more intense competition, and the ease of labour supply within the cluster.

These specific aspects of air travel then in turn feed through into broader economic mechanisms which affect economy-wide productivity:

- **International trade:** by reducing the costs of trade, air travel can encourage greater specialisation, allowing regional and national economies to play to their comparative advantages. This in turn tends to encourage trade flows further, bringing benefits from competition, economies of scale and new sources of innovation in supply chains.
- **Labour productivity and flexibility:** cost-efficient air links enable firms to access a regional and global pool of labour, in particular allowing firms in one location to bring in specialist expertise in a timely fashion when needed by the business. This makes the effective labour force available in a well-connected region much larger and more flexible than that in an area without good air links, and thus in turn helps improve labour productivity.
- **Investment and innovation:** greater frequency and reduced cost of air links reduces the effective distance between geographically separated sources of capital and investment opportunities. This enables a greater intensity of inward and outward investment, resulting in more efficient investment projects raising capital more cost effectively than in less connected markets. Inward investment is an important channel through which production efficiencies can spread rapidly from one market to another.

A specific example of the positive role played by air connectivity in regional economic development, and the role that retail revenues play in supporting the regional airport, is illustrated in the case study on Cork Airport, Ireland at Annex 3, which is summarised below.

Supporting regional air transport connectivity and the regional economy - Cork Airport

Competition between airports in Europe for airline business is strong and increasing. Airlines operating point to point or low cost services are not tied to network hubs. They can relocate their aircraft to take advantage of the most profitable opportunities. This puts pressure on airports to keep charges low. This applies particularly to smaller airports serving local regions where the bargaining position of airlines is likely to be strongest. For such airports commercial revenues make a vital contribution to financial sustainability and therefore to the connectivity they provide to their local regions and the businesses operating within them.

Cork Airport, with some 2 million passengers, is Ireland's second airport and main gateway to the south of the country. It connects the region's internationally focussed pharmaceutical, IT and tourism businesses with the wider world and thereby sustains investment and employment in the local economy. A survey of businesses in and around the airport found that over three quarters would be adversely affected by the loss of passenger services at the airport. Yet Cork Airport has faced declining passenger numbers in recent years as airlines have moved elsewhere. This has increased the importance of commercial revenues, of which retail constitute around half. Cork Airport has been able to grow such revenues despite declining passengers, providing vital financial support in the face of increasing competition from other airports.

The network of regional airports across Europe plays a key role in improving connectivity and thereby supporting economic growth. European Union policy makers have therefore placed some importance on fostering this part of the aviation sector.

European Union policy towards regional airports

The role that regional airports play in the economic and social development of the European Union is well recognised by both the European Commission and Parliament.

In its draft 2013 proposal for EU Guidelines on State aid to airports and airlines, the Commission noted that "linking people and regions, air transport plays a vital role in the integration and the competitiveness of Europe, as well as its interaction with the world. ... At the same time, regional airports can play an important role for local development and the accessibility of certain regions, in particular against the backdrop of positive traffic forecasts for the development of EU air transport."

The European Parliament Report on the future of regional airports and air services in the EU (2011/2196(INI)) highlighted the positive contribution of regional airports to economic integration within Europe. It called for EU policies to support the "socially and economically viable development of regional air services", including measures to prevent the imposition of 'one bag rules' by airlines from undermining regional airports' commercial development. The European Commission's 2015 Aviation Strategy has drawn attention to the 'significant competitive disadvantage for less-connected cities, regions or countries' that arise from thinly serviced airports and has highlighted the importance of enhanced connectivity to economic growth'.

8.5.2 Overall impact on supply-side

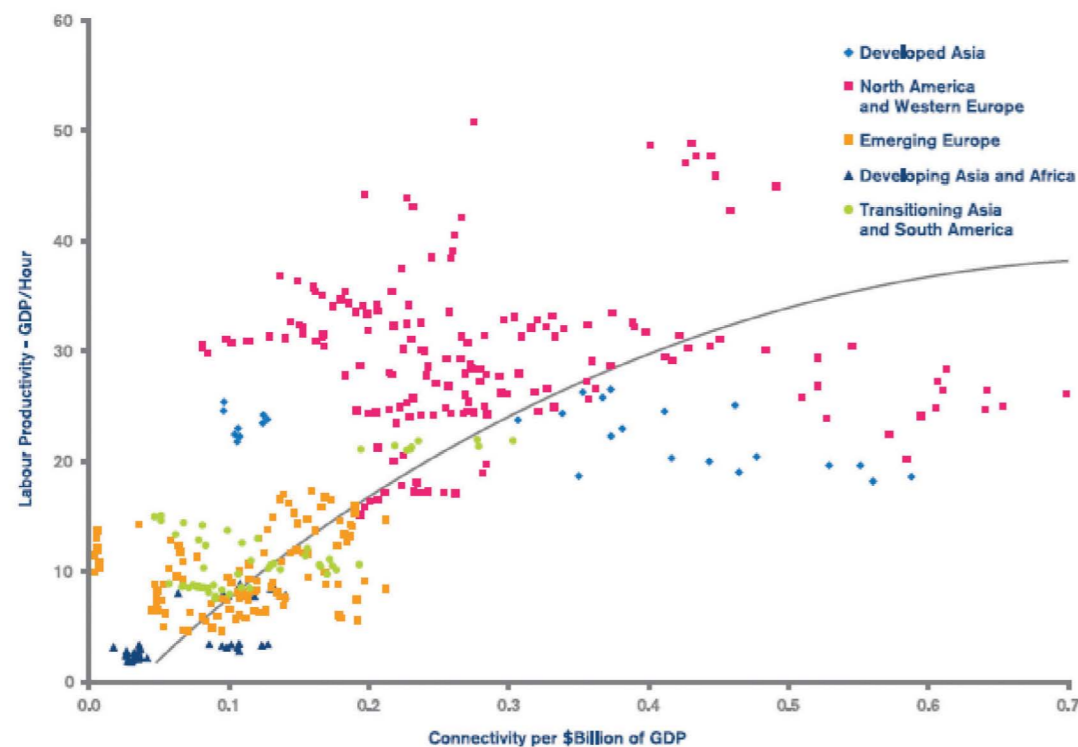
Quantifying the overall impact of greater air transport connectivity on the long term economic performance of a particular country or region is a necessarily complex calculation. Several previous studies have attempted to measure the link between air connectivity and productivity growth. IATA⁵⁷ has developed an indicator of air connectivity for countries, based on the frequency of flights and number of seats to destinations in other countries.

Air connections to more popular airports (which in turn give greater opportunities to connect to other onward flights) are weighted more highly than those to smaller airports. Clearly, larger more developed countries will tend to have greater absolute levels of connectivity, so to rank countries the connectivity indicator is scaled by national GDP.

On this measure, connectivity per GDP, small open economies such as Singapore, Hong Kong, Switzerland and New Zealand, score highly (0.6-1.8), whereas larger developed economies in Europe and North America have lower scores (around 0.2-0.4).

IATA finds a positive relationship between air connectivity per GDP and levels of labour productivity in each country, using data from 1996-2005. This relationship appears strongest for developing countries, and appears less marked for developed countries, suggesting that there may be a threshold effect: when countries develop beyond a certain point, and are already well connected, greater air connectivity on its own is not so important a factor in supporting further growth. This relationship is illustrated in Figure 51 below.

Figure 51 Connectivity and labour productivity⁵⁸



⁵⁷ Source: Aviation Economic Benefits, IATA Economics Briefing No 8, July 2007
⁵⁸ Source: IATA, 2007

The strength of the link between air connectivity and labour productivity was estimated by using a model which relates changes in labour productivity to changes in key potential causal factors (capital investment, research and development, education expenditure, and the air connectivity/GDP measure).

The key results from the IATA study are:

- A positive link between connectivity and productivity. The model shows that connectivity has a statistically significant relationship with labour productivity levels. It shows that a 10% rise in connectivity, relative to a country's GDP, would boost labour productivity levels by 0.07%. (This compares with recent annual growth rates in labour productivity in Europe of around 0.0-1.5% per annum⁵⁹.)
- A greater impact for developing countries. The relationship between connectivity and productivity is logarithmic (i.e. based on percentage changes in both values), rather than linear. This suggests that investments in air transport capacity in developing or transition countries, where connectivity is currently relatively low, would have a much larger impact on their productivity and economic success than a similar level of investment in a relatively developed country.

In terms of causality, the IATA study did not provide conclusive evidence that changes in connectivity directly caused changes in productivity, nor did it reach the opposite conclusion that productivity changes cause connectivity changes. These findings are consistent with there being a dynamic, virtuous circle between air connectivity and productivity.

⁵⁹ Source: Eurostat. Real labour productivity per person employed, % change on previous period: 1.4% in 2011, -0.1 in 2012, 0.4% in 2013
⁶⁰ Source: Economic Impact of European Airports, InterVistas for ACI Europe. 2015

Over time, and at different stages in an economy's development, air connectivity improvements can help stimulate growth and productivity in a number of sectors, which in turn boosts economic growth, which in turn raises the demand for air connectivity.

Within Europe, a recent study for ACI Europe by the InterVistas consultancy⁶⁰ identified a two-way causal link between air connectivity and the level of economic output per person in each country. Econometric analysis was conducted to investigate the relationship between economic growth and connectivity, while controlling for other factors that may have an impact (such as education levels, research and development, capital spending, institutional and regulatory factors, etc.).

This analysis found that a 10% increase in connectivity was associated with an increase in GDP per capita of 0.5%. Additional analysis found evidence that this relationship was two-way. That is, as an economy grows, it supports a larger air transport sector, but it is also the case that growth in air transport supports economic growth. Air transport is not merely following economic growth but also acting as a catalyst for growth.

Based on the econometric analysis, it was estimated that a total of around 8 million jobs were associated with the catalytic impacts of airports in Europe, earning €210 billion in income. The catalytic impacts of these airports generated approximately €430 billion in GDP. This was approximately 2.6% of the total GDP of the European countries in 2013. The authors note that these figures are not attempting to credit airports with solely creating 2.6% of the European economy. The economy is far more complex than that. It clearly takes a wide range of players acting together to generate economic growth - government, business, infrastructure providers, residents and others.

What the estimates do show is that without European airports, and particularly without the diverse and affordable connectivity supported by these airports, the economies of these countries would not be as large or as productive as they are today.

8.6 Conclusions on aviation's contribution to economic growth

The aviation sector, including airports, other ground-based infrastructure and services (including retail), and airlines, makes a material direct contribution to the economy through the value added by the companies in the sector and the employment they provide. Aviation also supports indirectly value added activities and employment in the supply chains to the sector.

Overall, studies estimate that this direct and indirect economic footprint measures around 1.0% of GDP for Europe as a whole. Some individual countries derive a greater benefit from the aviation sector: in the UK, for example, the direct and indirect impact has been estimated to be 1.5-2.2% of GDP, in part due to the UK's position as an island nation, reliant primarily on air and sea connections to its European neighbours.

Passengers and other users of air travel derive significantly greater consumer benefits from air travel than is reflected in the costs they pay to airlines in fares. The sum of these benefits (consumer surplus) is estimated at around 0.8% of GDP in Europe. On average, the value of each flight to an individual passenger in Europe is estimated to be around 50% higher than the air fare paid for the flight.

The aviation sector also has a much wider catalytic impact throughout the economy, by enabling companies and people to work more productively as a result of using air travel to access wider markets, more innovative ideas, improve efficiency in production and investment, and benefit from economies of scale. This supply-side effect is more difficult to measure than the direct and indirect impact of the sector, as it depends on complex two way interactions over time.

The most widely cited study in this area suggests that a 10% increase in the intensity of a country's air connectivity (compared to the size of its economy) would increase labour productivity by around 0.07%. This compares to a typical annual growth rate in labour productivity in developed countries of around 1-2%. In terms of levels of economic output, within Europe, the aviation sector is estimated to contribute around 3.2% of GDP through its two-way impact on other sectors (such as distribution, high value manufacturing, professional services, tourism) which are reliant on air travel and which in turn create a demand for air connectivity.

Aviation therefore plays a critical role in generating and sustaining economic growth in an increasingly interconnected world. The role that airports play in enabling this broader economic contribution from aviation is critical. Airports provide the infrastructure that enables aviation networks.

The recent growth of Middle East aviation demonstrates this through its combination of competitive airlines and world class airport facilities. In turn, retail at airports makes a vital contribution to enabling airport development with its heavy financial demands, and to making airports a more pleasant place for passengers to spend their time.

9 Study conclusions and policy implications

9.1 Study conclusions

Duty free and travel retail makes a direct contribution to European GDP and employment. It has the potential to stimulate the growth of small enterprises by providing an international channel for their goods and thereby assisting their entry into export markets. But beyond these direct economic effects it plays a vital role in contributing to the commercial revenues which help sustain key aviation and maritime services and infrastructure, and the resulting connectivity, within Europe and beyond. That connectivity in turn sustains and stimulates economic activity generally and can be critical to the regeneration of Europe's regions.

From its earliest days, when it often represented an add-on to existing terminal facilities, airport retail has evolved to where, today, it is integral to both the design and financing of terminals and to the airport's branding and overall passenger proposition. Its financial importance, generally strong at airports throughout Europe and in the maritime sector as well, varies between individual airports and maritime services. For airports with under 10 million passengers per year, the most financially challenged part of the sector, it contributes proportionately more to commercial revenues than at larger airports and therefore to overall finances and profitability. For some maritime operations the contribution is even greater.

The central role of duty free and travel retail in the European aviation sector is now under pressure. According to ACI Europe Director General⁶¹: "This new situation is pointing to a serious challenge for the airport industry's well established financial model. Since airlines and passengers pay nowhere near the full cost of the infrastructure they use, our ability to modernise and develop to offer higher quality and more connectivity has always been conditional upon growing our commercial revenues."

9.2 Policy implications

From a policy perspective, therefore, duty free and travel retail needs to be considered as more than the provision of shops at airports or on ships. Full account needs to be taken of the contribution that it makes to the provision of essential transport infrastructure and services. Through the provision of retail services that passengers want to use, this sector enables a voluntary contribution to transport finances to be made that would be difficult to replace through increased mandatory airport charges on airlines. It is interesting to note that other transport services, notably major city rail interchanges, which had previously neglected retail, are beginning to learn from airports⁶².

The starting point for policy makers should be full recognition of the role that revenues from duty free and travel retail make in supporting transport services and enabling, in particular, airport infrastructure development. This is particularly important given the growing shortage of airport capacity, highlighted recently by Eurocontrol⁶³. Enabling the necessary investment will require airports to raise billions of Euros. Solid retail performance will be an important part of the business case required by investors.

⁶¹ ACI Europe press notice, 25 June 2015

⁶² The retail space at London's St Pancras Railway Station is a good example of this trend, and there are proposals to use freed up space on the London Underground for these purposes.

⁶³ Eurocontrol, Challenges of growth 2013 report

Recognising the role that retail revenues can play in achieving European-wide public transport policy objectives should lead to an approach that seeks where possible to foster retail activity, and is properly cautious about initiatives and regulation that may hinder it. Such a policy approach should entail evaluating the costs and benefits of any regulatory proposals not only against their impact on duty free and travel retail directly but also the potential effect on wider transport financing and connectivity outcomes. This would mean recognising the revenue implications of regulations targeting particular segments of retail, the contributions of which may be difficult to replace.

More generally, it involves recognising the unique character of the duty free and travel retail channel which involves selling to people who more often than not will be consuming their purchases in many and disparate countries, distant from those where they are bought. Applying national-level regulations may therefore be neither relevant nor proportionate to achieving consumer protection goals.

This is not necessarily to argue for specific retail policy or regulatory outcomes, but for policy makers to take specific account of both the nature of the unique transaction channel represented by duty free and travel retail, and the wider contribution its revenues make. Those revenues need to be worked for - by airports in designing terminals and the commercial and incentive arrangements with retailers, and by retailers in their day to day interaction with passengers. In common with other high street retail activities, there are threats as well as opportunities.

The growth of on-line shopping is an inevitable challenge. The health of the sector cannot therefore be taken for granted, nor its financial contribution to transport and connectivity. This report has demonstrated, however, how important it will be to sustain those revenues and their economic contribution.

Annex 1 Case study: Bottega SpA

Bottega SpA is a family-run business which produces and markets grappa, wines, sparkling wines and liqueurs from its distillery base to the north of Venice, Italy. It has been able to grow its sales and global exports of its unique and very locally specific products, enabled to a considerable degree by duty free and travel retail.

Developing an export business

The company was founded in 1977 and is currently run by the third generation of the Bottega family. Its early decades were focused on the production of high quality grappa and other wines. From 1985, the company developed its first blown glass bottle, giving the grappa an innovative packaging and a clear link with Venice as a cultural reference point. From the late 1980s, Bottega started to develop its export business.

The company now sells in 120 countries across all continents. Its major markets, beyond Italy, are Germany, Canada, the UK, the Netherlands and Switzerland. Bottega has developed a distribution network which combines duty free and travel retail, notably through airport shops and on-board airline sales, along with sales for domestic consumption to restaurants, venues, gourmet retailers, department stores and importers.

The role of duty free and travel retail

Bottega began to develop its duty free and travel retail sales in the early 1980s, in parallel with designing products for the gift industry. It was able to combine high quality products, in content and packaging, sold at an affordable price, thanks to the favourable tax conditions. The company first launched this approach in Livigno, an Italian alpine town with duty free status, and was able to confirm the commercial potential of its wine products, packaging and marketing to an international customer base. Subsequently, Bottega was able to approach airport shops with a clear and distinctive proposition. For airport sales channels, Bottega created special, exclusive products, characterised by appealing and specifically designed packaging: for example, blown-glass bottles of grappa, and Bottega Gold - Prosecco in a gilded bottle. The duty free conditions for extra-EU sales provided flexibility to the company to find the right balance between quality and price, enabling Bottega to offer distinctive products at attractive price points.

Having started with land-based duty free areas and then expanded into airport sales, Bottega has more recently broadened its sales channels in the maritime sector with the development of the Bottega Prosecco Bar. This concept, inspired by Venetian taverns, combines Bottega wines with well-balanced regional food pairings. It thus aims to promote Bottega products, but also provides a “taste of Italy”, which can encourage consumers to visit Italy and/or discover more about its culture, cuisine and wine heritage. Bottega inaugurated the first Prosecco Bar in 2014 on the cruise ship route Stockholm-Mariehamn. Venues for other openings include an Abu Dhabi hotel and Birmingham, UK. The importance of duty free and travel retail is evident from the strong growth rate via this channel and the major contribution of these sales to overall revenues. Sales via duty free and travel retail have grown at an average of just under 20% per year in recent years (2010-2014), compared to strong growth in overall sales, averaging 11% in the period.

As a result, duty free and travel sales accounted for one-third of Bottega's overall sales revenue in 2014, up from 27% in 2011. Growth in duty free and travel sales has been a major contributor to the growth in exports, up from 72% of sales in 2011 to 81% in 2014. Over that period, duty free and travel sales have risen from 37% of exports to 42%.

Building the brand

In addition to sales revenue, Bottega has been able to use its prominent and eye-catching displays within airport duty free shops to promote understanding of the product and brand to a wider audience which might not otherwise have been aware of these very distinctive and specific products.

This visible presence in stores has contributed to its leading position in a number of airport retail outlets⁶⁴:

- **Rome Fiumicino:** leading supplier of wines and spirits
- **Milan Malpensa:** leading supplier of wines and spirits
- **Copenhagen:** leading sales of sparkling wine
- **Stockholm:** leading sales of red wine
- **Oslo:** among top five wine producers by sales
- **Dubai:** leading sales of sparkling wine and grappa
- **Doha:** only listed retailer of prosecco

Bottega has also developed a wide ranging distribution network among 44 airlines, including major long haul carriers based in the USA, Europe, the Gulf States and the Far East.

⁶⁴ Data for 2014. Leading supplier defined as among top 5 by sales within wine and spirits category at relevant airport.

Annex 2 Case study: Butlers Chocolates

The success of Butlers Chocolates in growing its international business shows the contribution that securing an international audience among high value travellers in airports can make to small producers. This not only generates immediate sales but also assists in creating market presence more generally.

Introduction

Butlers Chocolates is an independent family-owned confectionery company, founded in Dublin, Ireland in 1932. Today it has grown to an internationally recognised retailer and manufacturer, with global sales of €27.5m in 2013, of which €8.3m were exports to 35 countries in 5 continents. Duty free and travel retail has helped Butlers to achieve export growth over the past decade averaging in the region of 20% each year. Butlers' products are now available in over 50 airports worldwide.

Growth through exporting, enabled by travel retail

During its first seven decades of trading, Butlers Chocolates was focused on serving the domestic Irish market, initially just through manufacture and wholesaling, and then from 1989 onwards via a growing network of its own retail outlets and, subsequently, online shopping. Butlers opened its first travel retail outlet in Dublin Airport in 2000. Luxury chocolates are an important part of an airport's confectionery offer as one of the primary reasons for traveller purchases is gifting. At a time when the luxury chocolate market was in its infancy in the domestic Irish market, the company identified the opportunity to sell luxury Irish confectionery gifts at Dublin Airport. Not only was a box of Butlers Chocolates a premium gift, for many it was also a high quality Irish souvenir.

The company pioneered the development of the premium confectionery category at Dublin Airport and, in doing so, helped Dublin Airport create a unique retail offer that showcased the best of Irish confectionery. The following decade saw substantial growth of Butlers' presence in the travel retail sector, first expanding further in Irish airports and then in other markets, in particular the UK, Portugal, Dubai and Russia. Exports had grown from €1.6m in 1999 to €4.7m in 2009. At the same time, Butlers' employment had risen from 170 to 240 over the same period.

In addition to sales via its own cafes and shops, Butlers also expanded exports in this decade through franchising of its stores overseas. In 2007, Butlers opened its first international franchise in Wellington, New Zealand. In the decade to 2010, Butlers also grew exports via sales in airport duty free shops operated by third parties. These included sales to major global travel retail operators such as World Duty Free, ARI, Nuance, and LS.

In recognition of its significant development, in 2009 Butlers Chocolates received a Frontier Award. These awards, known as the 'Oscars' of Travel Retail, recognise excellence in the international Travel Retail markets. An international judging panel made its decision based on a variety of factors including: innovation, originality, perfect execution of concept, good business practice and strong sales results. Butlers was recognised as Supplier of the Year, a significant accolade for any company to achieve, let alone an independent family owned company. Other shortlisted companies that year were Estée Lauder Travel Retail, Braun GmbH and Patron Spirits Company.

Since 2009, Butlers has continued its strategy of international sales growth, in part through duty free and travel retail. In a number of countries, it has combined travel retail sales in airport outlets with the opening of its own franchised cafes and other retail outlets in domestic shopping malls.

For example, in Pakistan, Butlers has established franchised retail outlets at Karachi airport as well as in malls and downtown shopping areas in Karachi and Lahore. In other countries (Bahrain, Portugal, Singapore), it has channelled its sales via duty free outlets at airports operated by third parties.

By 2014, Butlers had sales in 50 airports in 35 countries. Exports had grown to €8.3m in 2013 (out of total annual sales of €27.5m), with duty free and travel retail by then accounting for 27% of total sales revenue. At the same time, Butlers' employment had risen to 300, primarily centred on its manufacturing and management base in Dublin. Future expansion plans remain focused around travel retail. Butlers plans to open a new Chocolate Cafe outlet in Dubai airport in spring 2016. The company plans to continue to develop travel retail sales through new outlets and the introduction of new products.

Travel retail in airports has enabled Butlers to develop a much broader international brand awareness than it could otherwise have achieved simply through exports to overseas retail channels alone:

- **Airport presence:** A strong presence in airport travel retail has provided Butlers with ready access to a high value audience of affluent and sophisticated potential customers. Achieving such exposure via usual overseas retail channels would likely have led to much slower growth. This is because a strong presence in travel retail can assist in growing brand visibility and awareness. The demographic of frequent flyers is attractive to premium brands; a brand seen in major airports becomes familiar, despite having no presence in the customer's home market. The travel retail industry itself is seeing increasing consolidation among the major players, so that a presence and good sales performance in one airport can more easily lead to opportunities in other airports over time.

- **Impact on domestic markets:** Brand exposure in airports can help support domestic sales and brand awareness as one of a number of factors influencing domestic market development.
- **Sources of growth:** Butlers has enjoyed growth in airport sales over the last few years as a direct result of strategically focussing on the sector and supporting it through a number of routes (human resource, advertising and promotion, and new product development). For example, Butlers has developed many new products over the last five years specifically for travel retail (Travel Retail Exclusive or TRX). There are several reasons for this - passengers like the idea of buying gifts at the airport that are not available on the domestic market while for airport retailers TRX products give their ranges a point of difference from high street offers and potential customers a valid reason to purchase at the airport rather than elsewhere. Thus, Butlers did not simply replicate what it does on the high street in travel retail, but employed a tailored approach to development of this market.

Conclusion

Airport travel retailing has enabled Butlers Chocolates to build a valuable international brand from a modest domestic base through exposure to relatively affluent customers. The airport presence has generated sales in its own right but also enabled broader overseas marketing through the awareness it creates. Growing international sales in turn support significant domestic employment in the company's home city of Dublin.

Annex 3 Case study: Cork Airport

Smaller airports can be vital links between peripheral regions and the rest of Europe. Activity at and around the airport and the connectivity it brings to the region make significant contributions to regional employment and economic value added. But such airports can also be exposed to shifts in the patterns of traffic between competing destinations, and to market pressure from airlines with choices as to which airport to fly from, with the result that there is strong downward pressure on airport charges. Retail revenues therefore play a crucial role in the financial viability of the airport.

In order to grow traffic into the airport's regional hinterland, Cork Airport is working with tourist promotion agencies to increase inbound visits as a complement to outbound business and leisure flights. Travel retail supports this development through the financial contribution it brings to the airport, as well the opportunity it provides to promote national and regional products.

Introduction

Cork Airport is the main gateway to the south of Ireland and is the country's second largest airport after Dublin Airport. Cork Airport had 2.1 million passengers in 2014, a decline of 5% on the previous 12 months, and a fall of 12% from its 2010 level of 2.4 million⁶⁵. The recent decline in traffic is largely driven by a switch in air services to central European destinations from Cork to Shannon Airport, some 140km to the north.

Against this background, Cork Airport is aiming to stabilise passenger traffic and return to growth. At present, only 38% of Cork Airport's passengers are inbound, which is low by international standards.

The airport is working closely with stakeholders in the tourist promotion industry to boost inbound tourism to the city of Cork and the wider region which can be easily accessed from the airport.

Travel retail at the airport is important to the generation of revenue for Cork Airport and so to sustaining its connectivity to the rest of Europe, and through presentation of local products to passengers, can complement the drive to attract inbound tourism from Europe to the region.

Economic impact of Cork Airport

As a small, open island economy, Ireland is crucially dependent on its air links for international trade. It is clear that airports and economic activity are closely associated and in the context of a European single market and an increasingly global market, air transport is essential to economic progress. Cork Airport recently commissioned a study⁶⁶ to quantify the contribution of the airport to employment, the regional economy and to economic growth.

This found that the airport generated around 1,900 jobs directly at the airport and in airport-related businesses, contributing €134m to Gross Domestic Product. In addition, Cork Airport supported 1,170 jobs indirectly in businesses supplying and supporting activity at the airport, and a further 1,420 jobs induced by the spending in the economy of employees supported by the airport directly and indirectly.

The largest economic impact was estimated to arise from the catalytic impact of the airport in facilitating tourism, trade, investment and productivity, where Cork Airport supported some 6,200 jobs. In total, the airport was estimated to support some 10,700 jobs and contribute some €727m to the Irish economy.

Most of the economic impact (just under 90%) was calculated to arise in the south west region around Cork Airport, meaning that the airport generates or facilitates 2.2% of the economy within its regional hinterland.

The quality and range of air services available at Cork Airport is a key contributing factor to South West Ireland's economic progress. The region's position as centre for pharmaceuticals, information technology and tourism is supported by the air connectivity provided by Cork Airport. The air service at Cork Airport helps transport high-value exports around the world, and enables employees of multinational businesses to travel to clients, regional offices and global headquarters.

In a survey of businesses based in and around Cork 93% of respondents indicated that the level of direct air services to/from Cork Airport is important or very important for businesses when deciding to locate or expand within the region. Over three quarters (77%) of businesses would be directly/indirectly affected by the loss of passenger services to/from Cork Airport.

Travel retail contribution to Cork Airport development

Despite the recent decline in passenger numbers, Cork Airport has been successful in growing its commercial revenues, which increased by 6% in 2014 on the previous 12 months. On a per passenger basis, this equates to a significant rise of some 12%. Commercial revenue accounted for 43% of the airport's overall revenues in 2014, and retail revenue made up 48% of this total, a slight decrease of 4% on 2013. In common with other smaller regional airports across Europe, Cork faces strong competition from other airports to secure passengers.

It is competing with airports across Europe to attract airlines which can deploy their aircraft flexibly across the whole of their European networks. In this situation, commercial revenues from travel retail and other activities are a vital contribution to the airport's overall financing, as they enable aeronautical charges to be set at a competitive level to attract and retain airline business.

Travel retail and duty free is very important to the airport development as can be seen from the revenue generated from commercial activities. In addition, it is a valuable show case for local suppliers and producers. Food products sourced from West Cork and other areas around Cork city and county have contributed significantly to the success of The Loop, the retail hub at Cork Airport.

With a focus on sourcing local produce and underpinning local jobs, Cork Airport has aimed to deliver quality food products to Irish passengers and visitors alike. Many of the brands available in The Loop are award winning, and benefit from the showcase to passengers which the retail presence at Cork Airport and associated online marketing provides.

Conclusion

In common with many smaller regional European airports, Cork Airport relies heavily on its travel retail revenues and other commercial income to sustain its financial viability in the face of competition for passengers and airlines and the competitive airport charges this competition requires. The retail contribution therefore helps sustain the connectivity which is in turn vital to the wider regional economy. In addition, Cork Airport has also been able to use its travel retail offering to connect with its regional heritage and thus support its wider goal of developing tourism into its region.

⁶⁵ Data source: DAA Annual Report 2014

⁶⁶ Cork Airport Economic Impact Study, by InterVISTAS Consulting for Cork Airport, January 2015

Annex 4 Case study: Helsinki Airport

The development of Helsinki Airport shows how retail can support broader airport commercial strategy and is now integrated into an airport's development plans, both in terms of passenger flows and the changing requirements of passengers. Helsinki's growing hub business has increased the proportion of passengers from East Asia, with a consequent need to realign retail to serve a changing passenger mix without losing a distinctive Finnish flavour.

Introduction

Over the past decade, Helsinki Airport has been seeking to grow its hub traffic, in line with Finnair's business strategy, exploiting its favourable geographic position between East Asia and Western Europe over the North Pole. This has contributed to both a growth of overall traffic at the airport, from 10.7 million passengers in 2004 to 15.9 million in 2014, and an increase in the proportion of international transfer traffic, which accounted for 13.2 per cent of passengers in 2014.

This has resulted in a need to expand and reconfigure current terminal capacity. A new development programme, designed to increase terminal space by 45 per cent, was launched in 2013. Construction is due to start in early 2016 and is scheduled to be completed by 2020.

The changing face of Helsinki retail

Helsinki's approach to terminal development has changed in recent years. In the past the focus tended to be more on speeding passenger flow, with a resulting emphasis on investing in infrastructure rather than focusing on the services required by passengers as they go through the airport.

The latter approach means taking more account of commercial factors and building an overall business case for expansion in which retail development plays an important part. Retail development will not in this case finance infrastructure expansion on its own but it is a crucial contributor.

There has also been a change to how Helsinki approaches retail. In the past, the airport used to run retail operations itself. These are now outsourced, with greater reliance on benchmarking against operations at other airports and passenger feedback on retail services.

The changing passenger mix

The development of transfer traffic has resulted in a different mix of passengers. From historic levels of 70 per cent, the proportion of Finnish passengers has declined to 50 per cent in 2014. The airport has seen a substantial increase in South Korean, Chinese, Japanese and Russian passengers and a consequent need to change the retail proposition at the airport. (Chinese and Russian passengers tend on average to spend twice as much per head as their Northern European counterparts.)

In particular, there has been an increase in branded stores, with an emphasis on well-known international brands focussed on liquor and perfumes as well as watches, leather goods and handbags. On the catering side there have also had to be changes to respond to an Asian preference for hot foods as opposed to sandwiches.

The result is an overall retail offering which is less oriented towards Finnish tastes. However, the airport has sought to retain a sense of place by retaining both in branded shops and duty free stores a good representation of Finnish products, including food (reindeer meat, salmon and berry products) and chocolates. In particular, the airport has included Finnish brands such as the clothing design company Marimekko, and children's books and cartoons that are better known in Asia.

Finnish brands are likely to see the airport as a showcase for their products, increasing their international prominence. The more international nature of the traffic through Helsinki has had implications for retail staffing, with an increasing emphasis on language skills and cultural empathy. The gender mix of retail operations is very different from that of airport operations generally, with 70 per cent of retail jobs occupied by females compared with 30 per cent on the airport.

Integrating retail into passenger flow

Good passenger flow is critical to the viability of the airport's transfer product. The relative locations of retail and operational facilities can assist this - for instance, positioning toilets and passenger flight information screens near to retail. This makes retail part of the overall passenger flow and assists the airport in its commercial objective of as near 100 per cent exposure of passengers to retail as possible.

As compared with modifying existing facilities, the expansion project makes the dual objectives of improved passenger flow and maximum exposure to retail easier to achieve as buildings can be designed with this clearly in mind.

Improving passenger perceptions

Expansion and redesign of the terminal and improvement in the retail offering should all contribute to improved passenger perceptions of the airport. This should ultimately be reflected in Helsinki's rankings in Airports Council International (ACI)'s Airport Service Quality survey, but is likely in the interim to be outweighed by the negative effects of the renovation work.

Conclusion

The growth of long haul traffic at Helsinki Airport and the redevelopment to strengthen its position as a leading intercontinental hub in Europe have required the airport's travel retail offering to adapt to the changing passenger mix. It has also created an opportunity for the airport to provide an attractive retail suite which combines international brands recognised by East Asian passengers along with distinctive Finnish companies.

Annex 5 Case study: London Heathrow Airport Terminal 2

The construction of the new Terminal 2 shows how integral the provision of innovative retail now is to the design of new terminals, balancing the financial contribution made from retail with the operational requirements for on time airport performance. It demonstrates the contribution that enhanced retail spend can make to airport financing and the impact on passenger satisfaction of good design, airport services and retail provision taken together.

Introduction

In June 2014, Heathrow Airport opened a new Terminal 2 to cater for up to 16 million passengers, double the number served by the former terminal on this site. In designing the terminal, Heathrow sought to optimise the passenger experience, while balancing the operational requirements of airlines and the airport itself with the commercial potential provided by a brand new terminal. The resulting travel retail environment provides a strong platform for revenue growth for retailers and the airport, while contributing positively to passengers' views of the terminal.

Background

With the opening of the new Terminal 5 in early 2008, adding to the airport's passenger processing capacity and allowing the hub carrier British Airways to consolidate the bulk of its flights into one terminal, Heathrow took the opportunity to the demolish and replace the old Terminal 2 with a brand new building. This development also enabled the airport to improve airfield efficiency through reconfigured stands, satellites and taxiways, and to cater for the growing fleets of super jumbo A380 aircraft.

The capital costs of the project, from the demolition of the old terminal in 2009 through to opening of the new terminal in 2014, were some £2.5bn⁶⁷. This investment contributed to an increase in the Heathrow asset base from £8.8bn in 2008 to £13.8bn in 2014. Nevertheless, regulated airport charges per passenger are projected to fall in real terms by 1.9% each year through to 2019. In part, this reduction in charges is financed by a projected 12% increase in Heathrow's retail revenues per passenger from £5.15 in 2014/15 to £5.77 by 2018/19.⁶⁸

Design for retail

At the outset of the project, there was a degree of tension between a number of airlines and the airport operator about the overall design concept for the new terminal, the balance of space given over to passenger processing and retail, and the funding of the project between landing charges and retail concession revenue. As Heathrow Airport is subject to price regulation by the UK Civil Aviation Authority, much of this commercial debate played out in a regulatory forum. Following extensive consultation between airport and airlines, Heathrow embarked on construction in 2009 of a 28 gate terminal (with a further 18 gates in a satellite terminal at the eastern end of the airfield).

Creating the right infrastructure within the terminal for an enjoyable retail experience for passengers was one of the central goals of the project. Research on passenger experience indicates that orientation within the terminal and dealing with security processing are the top two priorities for passengers as they move through the airport terminal. The opportunity to shop is the third most important factor affecting passenger experience. In developing plans for the new terminal, Heathrow Airport engaged in significant collaboration with the main retail tenant, World Duty Free Group, during the design phase.

Access to the departure lounge is via a single security 'funnel' leading into an open space to allow passengers to 'decompress' and orientate themselves before deciding how and where to spend their time in departures. This design helps to de-stress the passenger journey from arrival landside through to the departure lounge, and encourages a more relaxed atmosphere among passengers, who are then more likely to engage with the airside retail offering.

As the building occupies a broader 'footprint' than Terminal 5, with therefore less requirement for vertical stacking, the new Terminal 2 departure lounge is split between floors which are relatively close together and easy for passengers to navigate.

Although the shops are divided between two floors, passengers entering the departure lounge have virtually 100% visual connection to the retail space, thereby enabling rapid orientation and the opportunity to plan their time to visit a range of stores. The floor plan design provides for an easy access for all passengers to the central duty free store, with 'walk by' access to all other stores.

This layout is designed to strike a balance between maximising passengers' exposure to retail outlets while providing adequate space for seating, orientation and an efficient passenger flow through to departure gates. The long term plan for Terminal 2 (dependent on future planning decisions) is that it will extend its footprint northwards, which would result in the current World Duty Free store then becoming a 'walk through' store. Retail outlets are concentrated in the main terminal building, with only a handful of small, mainly travel essentials shops located in the satellite to the terminal.

The airport's aim is to concentrate passenger interest and time within the departure lounge, so as to maximise the opportunity for and interest in shopping and avoid dividing the potential customer base between split sites each with less critical mass and therefore a more constrained variety of outlets.

Ample wayfinding and flight information within the departure lounge, allied to reliably fast travelators, give passengers confidence that they can reach their boarding gates within a reasonably short time. As airlines gain experience of operating at the terminal, Heathrow aims to encourage them to set realistic 'call to gate' times, to allow passengers to relax for as long as possible in the lounge while also enabling airlines to meet their own on time performance targets.

The content of the retail space within Terminal 2 has been designed to produce a discernibly British space - over 60% of retailers are British-based. Heathrow has also sought to attract retail and catering brands which are new to travel retail, including leading High Street brands. To cater for passengers seeking the most from their travel retail experience, the airport has created a personal shopping lounge, with a curated set of distinctive products from the terminal's retailers, and a personal shopping service.

⁶⁷ Source: Heathrow (SP) Limited, results for 9 months ended September 2014

⁶⁸ Data sourced to CAA, Economic regulation at Heathrow from April 2014: notice of the proposed licence, January 2014

Evidence to date indicates that passengers have responded favourably to the overall experience of the new Terminal 2. By March 2015, passengers rated Terminal 2 at around 87% satisfied, some 4 percentage points higher than the equivalent score for Terminal 5⁶⁹. For the fourth quarter of 2014 (by which point the phased transfer of airlines and flights to the new terminal had been completed), the passenger service data indicated that overall satisfaction with the airport had risen. Terminal 2 was registering a passenger satisfaction score of around 84%, ahead of Heathrow as a whole (80%) and ahead of all other European competitors and comparator airports⁷⁰.

Conclusion

At Terminal 2, the physical infrastructure of the terminal and duty free and travel retail's place within it has been designed to secure efficient flow of passengers and the resulting operational benefits as well as improved passenger experience and retail financial contribution. This integrated approach to terminal design has enabled the airport to create in the terminal an environment which supports both retail activity and passengers' overall satisfaction with the airport.

Annex 6 Case study: London Stansted Airport

The expansion of Stansted's Departure Lounge demonstrates the centrality of retail revenues to airport economics and how well designed retail space assists in the efficient and economic processing of passengers through the airport in a way that enhances their experience. The expansion programme, and the contribution of retail to it, enabled the airport to expand its capacity, improve its passenger experience and maintain its competitive approach to airport charges.

Introduction⁷¹

In spring 2013, shortly after its acquisition by the Manchester Airports Group (M.A.G.), Stansted Airport embarked upon a major construction project to transform the passenger terminal. The objectives of this project centred on improving the departing passenger experience, including through enhancing the retail offer within a redeveloped departure lounge.

Crucially, by growing the level of retail income per passenger, in combination with planned increases in traffic volume through commercial agreements with airlines for growth, Stansted Airport was able to fund its planned improvements in passenger experience without increasing charges to airlines or passengers, thus putting it in a stronger position to attract airlines and passengers in future.

Background

Stansted Airport is London's third largest airport, handling 19.9 million passengers in the year to December 2014, and has become one of Europe's most important bases for low cost carriers in recent decades. It is currently experiencing an upturn in traffic, following a decline in recent years from its pre-recession peak: passenger numbers had fallen from 23.8 million in 2007 to 17.5 million in 2012.

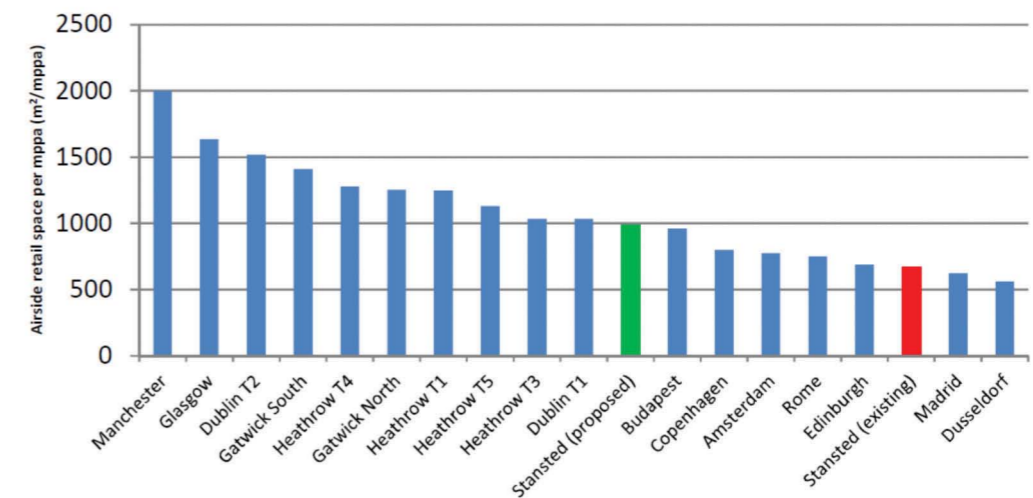
As low cost airlines changed their operating practices, passengers responded by changing their own behaviours. Low cost airlines seeking to simplify their airport operations encouraged passengers (through separate baggage charging) not to check-in hold bags.

This had the effect of significantly reducing the percentage of passengers using check-in, and increasing the percentage of passengers taking their own hand luggage to the aircraft.

As a result, passengers spent more time airside, placing the terminal facilities under some strain at peak times: landside and security dwell times had fallen from around 45 to 35 minutes in recent years, while departure lounge dwell time had increased to over 50 minutes. This had resulted in a less enjoyable passenger experience (with satisfaction scores falling from around 80% to around 66%) and one which was less conducive to travel retailing.

The changes in passenger and airline behaviour created an opportunity to reconfigure the terminal space, away from check-in and to make more space available for security and airside facilities. Prior to redevelopment, Stansted's Departure Lounge had less space for passenger circulation and commercial space than other UK and European airports in its peer group. Figure 1 below shows that Stansted had around 670m² of airside retail space for each million passengers going through the airport; the average from the peer group shown below is 1100m² - 60% more than was previously the case at Stansted.

Figure 52 Airside retail space per million passengers per annum at UK and European airports



⁶⁹ Average of published service quality scores (on a 5 point scale) for seat availability, cleanliness, wayfinding, flight information and security.

⁷⁰ Source: Heathrow Airport service quality data

⁷¹ Data for this case study were largely obtained from Stansted Airport's consultation paper, 'Terminal Transformation Project, Airline consultation document' - March 2013, and subsequent airport news releases

M.A.G. had already undertaken a similar redevelopment of passenger facilities at Manchester Airport itself. This addressed the underlying drivers of passenger stress by smoothing passengers' passage through airport processes (check-in, baggage and security), and enabling passengers to go airside as soon as possible in their journey where they become more relaxed. The redevelopment scheme at Manchester's Terminal 1 in 2008 transferred most of the retail space to an airside environment (from 61% before to 81% now). This change helps to signal to passengers that they should go to the Departure Lounge as early as possible, removing a key source of passenger confusion within the airport and improving the passenger experience.

M.A.G. applied its passenger research findings to Stansted's redevelopment. These demonstrated that the subconscious priorities which drive passenger experience while at the airport are cleanliness, comfort, information and retail opportunities, rather than the conscious stated priorities of surface access, check-in and security, which tend to influence prior choice of airport.

Retail growth at core of terminal redevelopment

Within the overall aim of improving passenger experience, Stansted Airport set as one of its key objectives that redevelopment should improve Stansted's overall departure lounge and retail offer. The project aimed to grow the level of retail income per passenger, fund the improvements in passenger experience and put the airport in a stronger competitive position to attract airlines. This project was part of the broader goal of M.A.G. as new owners and operators of Stansted to reverse the previous decline in passenger numbers. M.A.G. also aimed to improve relationships with the leading low cost carriers which use the airport as a base to access the South East England passenger market.

The strategy to achieve this was to:

- reconfigure the terminal so that the allocation of space better reflected the way departing passengers used airport facilities;
- shift the landside/airside boundary to reduce the amount of redundant space in the landside environment;
- relocate and redevelop the Central Search area to provide a better customer experience, improved efficiency and to differentiate the security processing of families from that of passengers on business;
- use the new airside space to create a larger Departure Lounge, with a 'decompression' zone, enlarged seating areas and a walk-through retail environment to optimise retail performance.

This strategy was then translated into a set of design principles, including creating a zoned airside retail offer for passengers in the Departure Lounge; creating a walk-through duty free store; and providing sufficient retail space for 5,500 departing passengers per hour. These retail objectives were balanced against other principles, to provide sufficient and suitable dwell areas for passengers in the Departure Lounge, and maintain operational capabilities of other functions.

In particular, Stansted sought to ensure that airlines, as well as passengers, would benefit directly, through providing a terminal facility better sized and equipped to cater for current and future passenger demand, aligned with airline operations, by encouraging passengers to dwell in the Departure Lounge while providing better flight information to support on-time performance.

Following consultation with airlines and travel retail firms, Stansted selected a development option in 2013 which would deliver around 11,000m² of airside retail space for a project cost of £38m⁷² (€46m), as part of a wider terminal transformation programme⁷³. The £38m project was fully funded from the forecast future increase in retail revenues per passenger supporting higher retail concession payments to the airport, with no increase in airport charges to airlines or to passengers needed to fund the project.

With growing passenger numbers forecast, rising towards 25m passengers per year over the coming decade, and up to 35m passengers per year in the following decade, then relatively small increases in retail concession revenue per passenger (less than €0.5⁷⁴) would be sufficient to fund substantial redevelopment works.

The first phase of the project, including the opening of a new flagship walk-through duty free shop, was opened in September 2014. The redevelopment is due to be completed by end 2015. The long term sustainable impact on passenger perceptions and airport finances will then become apparent from 2016 onwards.

Conclusion

Stansted Airport has demonstrated that new passenger terminal infrastructure with a high retail component can be self-financing, as extra revenues from enhanced travel retail facilities cover the costs of investment. The reconfigured terminal space also improves operational efficiency and provides for a better overall passenger experience.

Annex 7 Case Study: Rituals

Rituals is an independently owned company, founded in Amsterdam in 2000. The company launched with 175 products all of which were essentially body and bath products, such as shower foams, hand washes and face scrubs, along with products to enhance the home environment, such as fragrance candles and perfume oil diffusers.

In just 15 years it has grown into an international retailer and manufacturer with global sales in 2014 of €304 million. Of these sales 56% were generated through exports to 24 countries across the three continents of Europe, America and Australia.

Rituals entered the duty free and travel retail market in 2012 in order to expand its wholesale business and to bring its own retail stores into the travel retail channel. In just four years the duty free and travel retail channel has generated over €30 million of incremental gross sales for Rituals and the channel now accounts for 4% of total retail sales.

Growth through international expansion

For the first five years of its history the company concentrated on building a successful brand within its home market of the Netherlands.

By 2005 it had opened over 9 stores in the Netherlands. 2005 also marked the company's entry into international markets with store openings and wholesale contracts initially in Belgium, followed by Germany, Spain and the UK.

⁷² M.A.G. Stansted Terminal Transformation Project - Airline consultation document, March 2013

⁷³ Stansted Airport website, May 2015

⁷⁴ Estimate derived from stated costs and 20 year NPV of project, with assumptions about traffic growth to 25mppa by 2024 and 35mppa by 2034, and discount rate of 10%.

Today that expansion has also brought Rituals into the domestic markets of France, Sweden, the USA, Brazil and Australia, and the product portfolio has grown to over 400 products. Sales by 2012 reached €175 million gross sales. In that same year, Rituals made its first entry into duty free and travel retail through the opening of its own retail store at Amsterdam Schiphol airport. This has since been followed by a second store at Schiphol plus stores at airports such as London Stansted, London Heathrow and Zurich. This expansion has been enabled, in part, by Rituals working with the major retail concession operators to operate their airport stores outside of the Netherlands.

Future expansion in travel retail

Rituals is committed to the travel retail market with a team dedicated to growing both wholesale supply and opening new airport stores. Unique products, packaged specifically for travel retail customers, are an essential feature of this strategy and help to satisfy customer demand for products that are different from the regular domestic offer.

Airports deliver a globally diverse and cosmopolitan profile of passengers, who tend to be discerning, brand aware shoppers. Airports stores are therefore an ideal way for Rituals to accelerate its brand awareness, which not only generates airport sales but also helps to feed domestic sales as travel retail customers begin to look for Rituals in their domestic retail environment. This virtuous circle of brand awareness and brand purchase is an important contributor to overall global expansion and sales growth.

Conclusion

The travel retail market is providing a unique platform for Rituals to generate incremental sales and accelerate brand awareness. An airport presence enhances the perceived status and size of any brand and adds significant credibility and appeal to the consumer. It will remain a key business driver for Rituals which is still very much a young company with a huge ambition to more than double in size by 2020. Achieving this business growth via travel retail will also generate significant direct and indirect employment as the company's manufacturing capacity will increase and operational, marketing, sales and store staff numbers will also increase to service the demands of the business.

Annex 8 Case study: Rome Fiumicino Airport

The ambitious redevelopment of Rome Fiumicino demonstrates how retail positioning and design is now an integral part of overall airport development, assisting the flow of passengers through the airport whilst, through "Made in Italy" theming and an associated locally focussed food and beverage offering, being part of the place the passenger is visiting.

Introduction

"Leonardo da Vinci" airport - Fiumicino (Rome) - has embarked upon a major infrastructure development plan, worth €12 billion in the period to 2044, aimed at enhancing and developing the Roman Airport System so as to handle and serve better the projected growth in traffic. This is a leading development project among Italian and European airports in terms of size and complexity.

The extended timescale enables Aeroporti di Roma (ADR), the owners of Fiumicino and Ciampino airports, to optimise the plans over time to ensure optimum implementation and phasing of investment, consistent with trends in traffic and the evolving expectations of passengers. By 2023, Fiumicino will have a modern and efficient infrastructure, designed to handle traffic of 55 million passengers - placing "L. da Vinci" amongst the leading European hubs. By 2044, traffic is projected to rise to around 100 million passengers.

Airport retail strategy

Non-aeronautical activities, including duty free and travel retail, generated just under 30% of total ADR revenues from airport management in 2014⁷⁵. This is somewhat lower than some other European hub airports; for example, at Heathrow Airport in the first 9 months of 2014, commercial revenue made up 37% of the total⁷⁶, while at Schiphol Airport in 2014, it accounted for 41% of the total.

To help narrow this gap, the proposed development project is based on the objective of creating a 'best in class' passenger experience. ADR plans to deliver this goal through offering passenger services within a terminal environment which creates the right ambience for customers.

In this scenario, retail activities, commercial services, restaurants and other food and beverage outlets are key facilities for passengers. The strategic objectives for airport retail are to realise a high quality environment with a strong integration between commercial facilities, services and seating areas, where passengers will spend their time in a comfortable space with natural lighting to deliver a quality passenger experience. ADR's goal is for L. da Vinci airport to be considered as part of passengers' travel, shopping and dining experiences in Rome and in Italy.

⁷⁵ Source: ADR Annual Report 2015

⁷⁶ Source: Heathrow (SP) Limited, Results for nine months ended 30 September 2014

Airport redevelopment plans

The current airport will be enlarged and fully refurbished in two main phases, as described below:

West side of the airport

- Creation of a new commercial building fully dedicated to passenger facilities (retail, food and beverage, services, VIP lounges, seating areas);
- Building of a new Pier F; and
- Terminal 3 refurbishment and reconfiguration

East side of the airport

- Building of new Pier A;
- Enlargement and reconfiguration of boarding area C;
- Refurbishment of boarding area B and D; and
- Terminal 1 full refurbishment and reconfiguration

In addition to these terminal developments, ADR also plans to introduce new baggage handling systems and hold baggage screening systems, and to increase airfield capacity through construction of a fourth runway with additional taxiways and aprons for aircraft parking.

ADR approach to retail development

At Fiumicino airport currently, retail facilities are characterized by undersized and fragmented areas. This creates a suboptimal retail offering which hinders growth. Major improvements are expected once the new terminal infrastructure becomes operational. This will provide a new centralised shopping mall, planned with customer needs as a priority, with associated increases in retail floor space.

ADR's overall guidelines for the development and planning of the new retail facilities were the following:

- To generate a comfortable, easy, fun and unique experience in the airport;
- To increase visibility of retail spaces, by creating a centralised passenger flow, maximising shop frontage, and integrating retail spaces with seating and waiting lounges; and
- To exploit the strong potential related to "Made in Italy" brands and products, of particular importance to fashion and dining, which will be key elements of the overall retail strategy.

The new commercial building will offer passengers around 12,000m² of facilities (retail and VIP lounges) on two levels. Immediately after the security zone, passengers will find a de-stress area, before crossing a bridge bringing them to the new commercial building.

A central duty free shop will host the passengers at the entrance to this building. A 200m path will then lead them along a retail "street", with shops on either side, and through several retail plazas, each one focused on specific markets and potential customers, and with dedicated seating areas and monitors for flight information.

At departure level, the mix of stores and brands will aim to provide a balance between luxury and non-luxury, with a particular emphasis on the "Made in Italy" theme. ADR also plans to attract an array of strong international luxury brands, and to use the high quality space within the new building, providing improved visibility of the retail offering and some twin floor shops, to create a positive environment which passengers will enjoy.

The upper floor will be dedicated to food and beverages - a real Italian food experience, from pizzerias through to high-end restaurants and wine bars. The attractiveness of the second level will be enhanced through voids in the ceiling ensuring visibility and light between the two levels.

The second phase of the infrastructure development plan (East side) will be focused on the eastern part of the airport, following the same approach of commercial space on two levels, delivering a high quality environment with a strong integration between commercial facilities, services and seating areas.

ADR anticipates that the development plan will be able to generate value for the airport and for all the stakeholders involved, creating the conditions to drive a strong increase of up to 40% in the average spending per passenger. The turnover generated by retail operations is projected to grow by more than 70%.

These commercial goals are planned to be delivered through:

- Increasing the floor space dedicated to retail;
- Improving the concentration of passengers passing through the retail area, through better visibility of retail to passing passengers and increasing the time passengers are exposed to retail, via the design of paths through the terminal; and
- Setting the mix of retail outlets on offer to match better the different types of passenger.

Longer term development of Fiumicino North

The Fiumicino North development project envisages enlarging the airport area by adding 1,300 hectares to the current 1,400, in order to provide for longer term growth in air traffic. The airport is expected to reach 55 million passengers by 2020 and 100 million passengers by 2044. New terminals will be required with a surface area of about 1 million m².

ADR's strategy in the development of these new terminal facilities is to deploy the quality, design and excellence typical of "Made in Italy" products, with the aim of strongly improving service quality for passengers and airlines.

Conclusion

The strategic redevelopment of Rome Fiumicino airport presents a major opportunity for ADR to transform the airport's travel retail offering, with the twin aims of boosting its contribution to airport financing and enhancing passengers' experience of the airport, as an extension of their visit to Rome and/or the rest of Italy. The emphasis given to retail in the redevelopment underlines both its importance for airport finances and to the branding of the airport and passenger experience.

Duty Free World Council

Duty Free World Council is the global voice for the duty free and travel retail industry. The industry's regional associations from around the globe have come together to form the Duty Free World Council (DFWC) in order to highlight the importance of the duty free and travel retail industry in generating significant levels of employment and in providing vital revenues for the aviation, travel and tourism and maritime sectors.

Objectives include increasing awareness and knowledge of the industry, providing support to the industry's regional associations and developing standards throughout the industry through educational activities.

President

Frank X O'Connell

The Duty Free World Council comprises the following members:

APTRA

Asia Pacific Travel Retail Association

ASUTIL

Asociación Sudamericana de Tiendas Libres

ETRC

European Travel Retail Confederation

FDFA

Frontier Duty Free Association

IAADFS

International Association of Airport Duty Free Stores

MEADFA

Middle East and Africa Duty Free Association

TFWA

Tax Free World Association



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