

FINAL REPORT

Economic Impact of Duty Free and Travel Retail in the Americas

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PREPARED BY
InterVISTAS

a company of Royal HaskoningDHV

Executive Summary

Key Figures

- In 2016, **US\$12.9 billion** was spent on duty free and travel retail in the Americas. The principal components were:
 - Duty free and travel retail sales in the aviation sales channel, estimated at nearly **US\$1.9 billion** in the U.S. and Canada and **US\$4.8 billion** in Latin America and the Caribbean, most of which was generated within airport terminals.
 - Land and maritime duty free and travel retail sales amounting to approximately **US\$6.2 billion**.
- Duty free and travel retail spending in the Americas *directly* accounts for an estimated **61,400 jobs** and **US\$8.2 billion in GDP**.
- Together with the businesses that supply the goods and services (*indirect impacts*) and spending of employees in the wider economy (*induced impacts*), duty free and travel retail in the Americas is estimated to support a total of **110,000 jobs** and **US\$10.6 billion in GDP**.

A growing industry sector, duty free and travel retail comprises the sale of goods to international travelers.¹ Duty free and travel retail is available for purchase at airports and on airlines, on cruises and ferries, and also at land border crossings, or at downtown duty free shop locations. In addition to duty free, full-retail shops (*referred to as travel retail*) are also available to travelers. These non-duty free offerings can include convenience stores, book stores and specialty stores selling fully taxable goods or services located post-security in airports or on cruise and ferry ships.

The Duty Free World Council (DFWC) commissioned this study to estimate the economic contribution that duty free and travel retail currently makes to economic activity in the Americas, and to understand the importance of this sector to regional economies.² The duty free and travel retail sector contributes significantly to economic prosperity in the Americas through the employment and activity it generates. Furthermore, it facilitates wider economic activity in other industry sectors, such as aviation and tourism, supporting the growth and development of economies in the region.

¹ Duty Free World Council (<http://dfworldcouncil.com/what-is-duty-free-travel-retail/>). The Duty Free World Council, the DFWC, is the industry association representing the interests of the global duty free and travel retail channel and has the overall objective of creating the optimal operating environment for the industry that will allow it to achieve its full potential.

² The Americas are defined as including North America, Latin America and the Caribbean. North America includes the U.S. and Canada only. Mexico is considered a part of Latin America and the Caribbean.

Total duty free and travel retail sales in the Americas vary between North America and Latin America and the Caribbean, as well as across sales channels. Based on an analysis of sales data, an estimated US\$12.9 billion was spent on duty free and travel retail in the Americas in 2016. Of this total, US\$3.9 billion was spent in North America and US\$9 billion of spending occurred in Latin America and the Caribbean.³ When reviewing the different sales channels, the total duty free sales handled by airports and airlines are higher than for other sales channels. With US\$6.7 billion in total sales in 2016, aviation comprises approximately half of the sales in the Americas, with higher value goods purchased at airports compared to other sales channels.⁴ **Figure ES-1** provides a breakdown of the estimated total sales in the Americas by region and sales channel.

Figure ES-1:
Total Duty Free and Travel Retail Sales in the Americas, by Region and Sector, 2016

Sales Channel	North America Total Sales (US\$ Billions)	Latin America & Caribbean Total Sales (US\$ Billions)	Americas Total Duty Free and Travel Retail Sales (US\$ Billions)
Aviation	\$1.9	\$4.8	\$6.7
Maritime	\$0.3	\$3.1	\$3.4
Land	\$1.6	\$1.1	\$2.8
Total	\$3.9	\$9.0	\$12.9

Sources: ACI North America reports, ACI (Airports Council International) World Key Performance Indicators Report 2016, Generation Research, Cruise Lines International Association, Counter Intelligence Retail Ltd., Canadian Border Services Agency and InterVISTAS Consulting analysis.

Note: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings and downtown duty free shops. North America includes the U.S. and Canada only. Mexico is included in Latin America & Caribbean.

The total sales estimated for the airport channel is based on analysis conducted by InterVISTAS Consulting using data from ACI-NA and Moodie Davitt. The Generation Research data on the airport channel appears to under estimate the total sales for the region. The estimated duty free and travel retail sales for the airline, ferries, cruise and land sales channels are sourced from Generation Research.

³ Total sales at airports were estimated using data from Airports Council International – North America's 2017 Concessions Benchmarking Survey, Airports Council International World's Key Performance Indicators Report 2016 and InterVISTAS analysis. Sales by airlines and ferries were estimated using data from Generation Research. Cruise duty free and travel retail sales were estimated using data from Generation Research, Cruise Lines International Association and Counter Intelligence Retail Ltd., while land sales were estimated using data from Generation Research and the Canadian Border Services Agency.

⁴ Based on total sales derived from the combined variety of sources listed above.

Aviation Sales Channel

The aviation sales channel for duty free and travel retail is estimated to account for approximately half of the estimated total duty free and travel retail sales in the Americas. A review of the different sales channels shows that U.S. airports perform quite differently from airports in Canada and, even more so, from those in Latin America and the Caribbean. Retail activity at airports in the latter region seems to mirror more closely the airports in Europe and Asia. For instance, the average spend per departing passenger in Latin America is roughly three to four times the average spend per departing passenger in the U.S. This is likely due to higher tax rates in South America, which encourage greater spending on duty free, coupled with high exemption rates.⁵ In Canada, airport retail concession revenue per passenger is just over US\$1.60, compared to US\$0.47 in the U.S. The major airports in Canada that serve international passengers, with generally lower levels of passenger traffic than their U.S. counterparts, also generate higher average airport revenue from duty free sales (US\$0.61 per passenger) than the largest international U.S. airports (US\$0.17 per passenger).⁶

For duty free specifically, the opportunity for revenue generation and growth in the aviation sector can be affected by passenger mix, specifically the degree of international traffic served in a given airport or region. International passengers have access to duty free (which domestic passengers do not), and generally have longer dwell times which contributes to a higher propensity to spend on duty free and travel retail items. The significantly smaller percentage share of international travelers at U.S. airports, as seen in **Figure ES-2**, could be among the reasons behind the differences in duty free and travel retail activity between the U.S. and other countries.

In addition, retail space at airports, while growing in magnitude, is generally less developed and less utilized in the Americas relative to other regions. The average number of retail outlets at airports in North America (39) exceeds most other regions (perhaps due to the overall average terminal space being larger than in other regions).⁷ However, North American airports exhibit a lower allocation of physical retail space relative to the level of passenger traffic. Conversely, airports in Latin America and the Caribbean contain 23 retail outlets on average, but they allocate more than double the amount of physical retail space relative to passenger volumes, compared to North America.

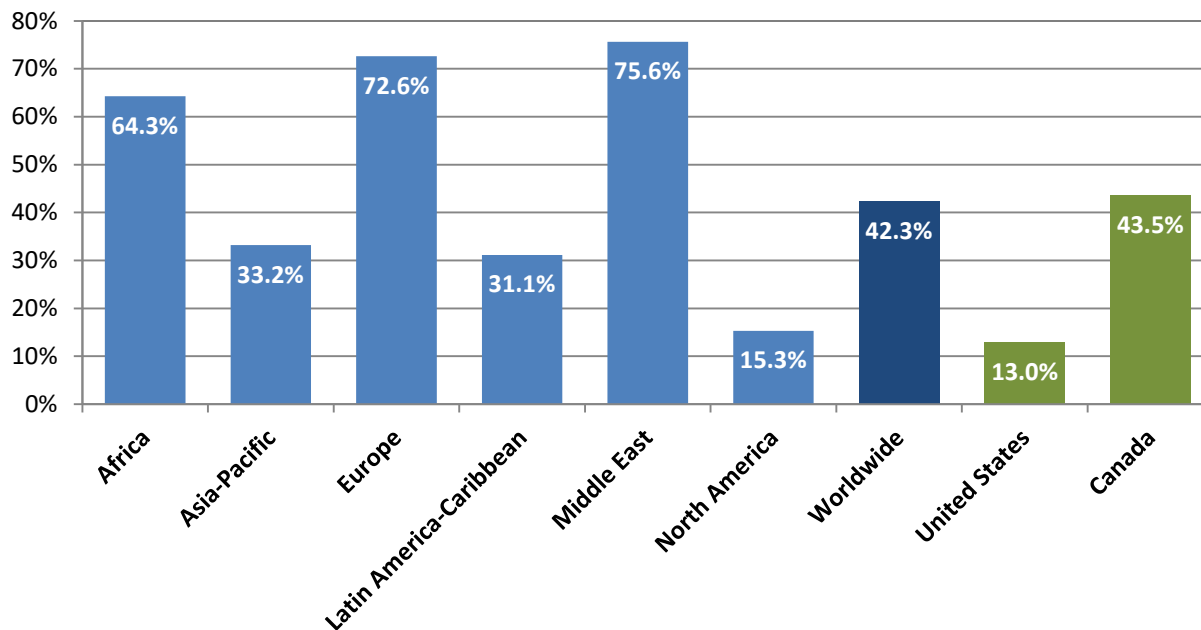
Current literature on consumer behaviour emphasizes the unique conditions within an airport environment that generally induce passengers to shop and buy duty free, including dwell time and the role it plays in increasing susceptibility to impulse purchases. Airports therefore provide an excellent opportunity to attract customers who have the time and opportunity to shop in post-security areas while they wait for their flights to depart. As a capital-intensive sector, aviation faces demands on maintaining and expanding infrastructure that will be served in part by the financial contribution made by non-aeronautical services particularly duty free and travel retail.

⁵ For example, the quantity limits for Brazil include 12 litres of alcohol, which compares to Canada where the limit is 1.5 litres of alcohol, or a little more than 10% of the limit for Brazil.

⁶ Based on a sample of the top 30 international airports in the U.S. and Canada. Refer to Section 4.1.3 and Figure 4-14 for details. Source: Data provided by ACI-NA to InterVISTAS.

⁷ Based on large samples (100+) of airports in each region, from ACI World Key Performance Indicators 2016.

Figure ES-2:
Share of International Passenger Traffic, by Region and Select Country, 2016

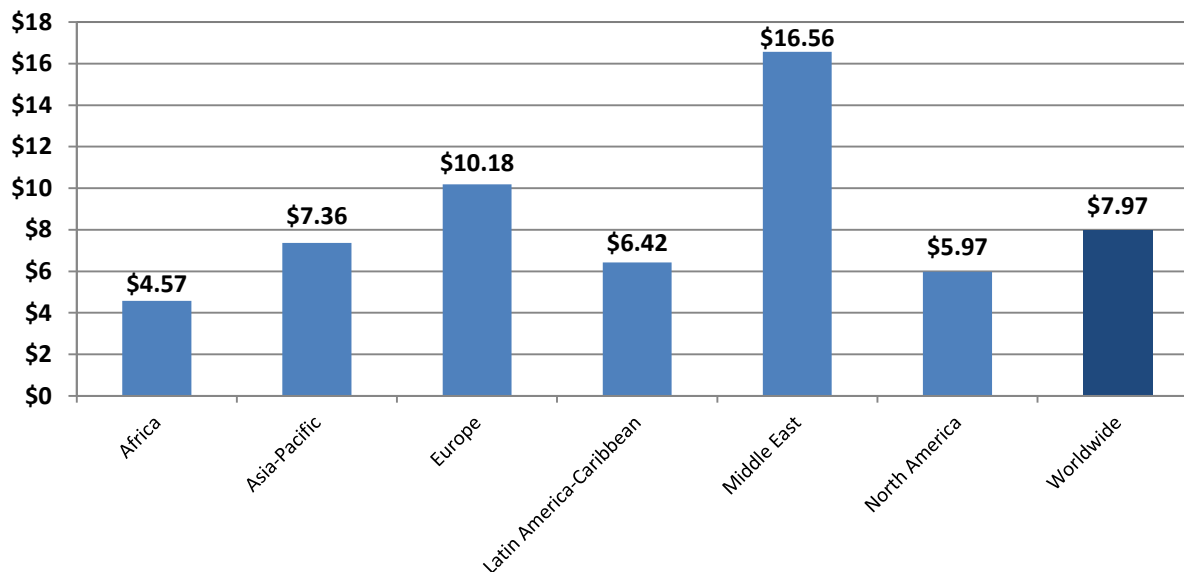


Source: ACI World Traffic Report 2016.

Note: The year 1999 was a seminal moment for duty free in Europe as all intra-EU duty free sales were abolished. This meant that all intra-EU travel effectively became domestic travel, thus passengers on those air services, did not qualify for duty free pricing. To maintain the business, duty free retailers absorbed VAT and discounted prices on products; but there was a swift change in buying behaviour by passengers, which saw sales drop significantly and margins reduced.

The variances in commercial revenue generation across regions and countries may in part be attributable to the differences in airport governance structures and the resulting differences in incentives that they create for airports. Airports may be under private, public or not-for-profit management and therefore have access to different resources and face different incentives to develop non-aeronautical revenue streams in order to fund airport investment and enhance the passenger experience. European airports, many of which are privately operated, generate almost double the non-aeronautical revenue (over US\$10 per passenger) compared to North American airports (under US\$6 per passenger) and Latin American and Caribbean airports (US\$6.40 per passenger), as shown in **Figure ES-3**. The profile of non-aeronautical business at North American airports is quite different from the rest of the world. Retail concessions make up only 9% of non-aeronautical revenues in North America, while they account for over 30% in both Latin America and Europe and 44% in Asia-Pacific.

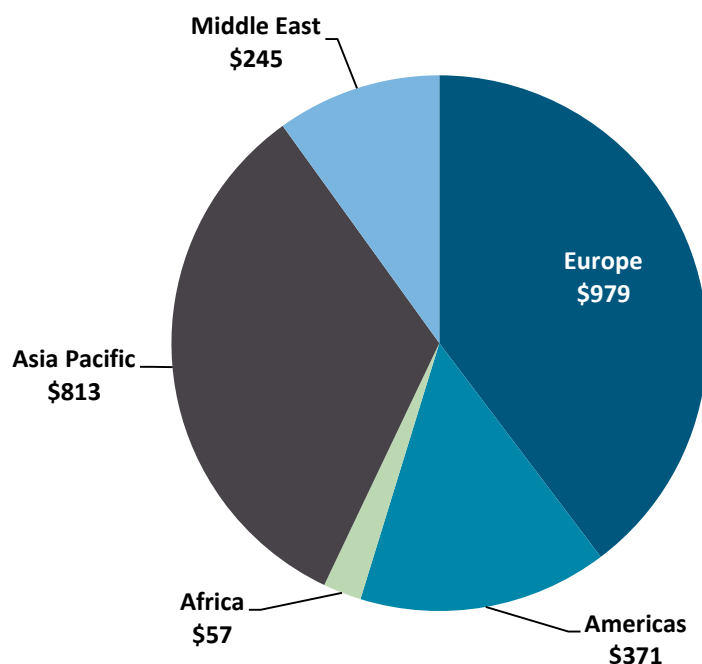
Figure ES-3:
Non-Aeronautical Revenue per Enplaned/Deplaned Passenger by Region, 2015



Source: ACI World Key Performance Indicators 2016

In the airline sector, duty free and travel retail comprises just one category in a growing list of ancillary offerings. As shown in **Figure ES-4**, the regional comparison for airline duty free and travel retail sales shows a similar breakdown to airport revenues, albeit in smaller amounts. The regions with the largest proportion of airport retail sales also generate the highest volume of inflight retail sales.

Figure ES-4: Airline Duty Free and Travel Retail Sales by Region (\$ millions), 2016



Source: Generation Research.

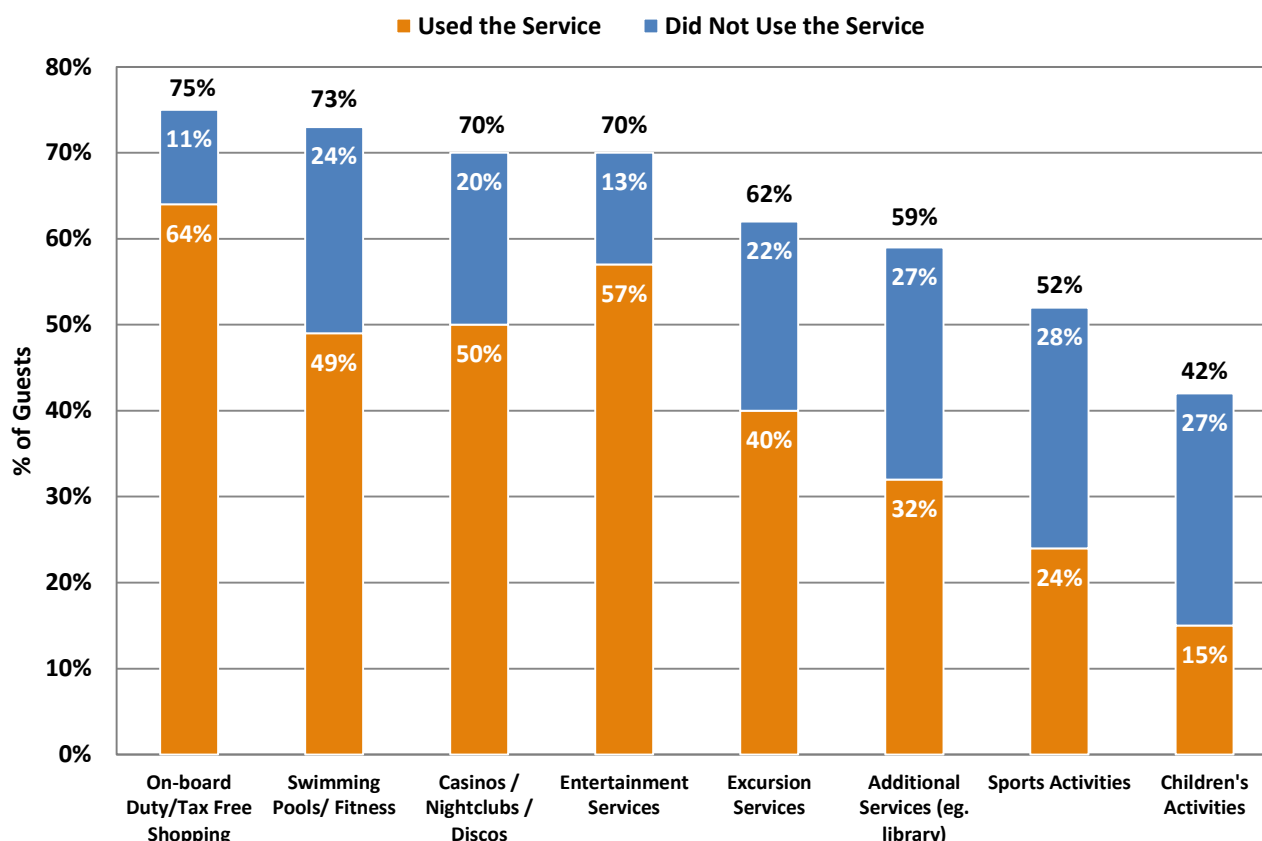
Maritime Sales Channel

Maritime transport in the Americas is well-supported by duty free and travel retail. This includes duty free purchases made by passengers on cruises (at shops either onboard the ships themselves or onshore at ports of call) and ferries. Duty free and travel retail is particularly well-integrated within the cruise industry in the Americas, and forms a substantial part of the cruising experience. This consumer perception is evidenced by the high conversion rates for duty free shopping on cruises, as summarized in **Figure ES-5**. Overall, purchase conversion is high among cruisers, as 88% of those who browse duty free shops also end up making a duty free purchase either on-board or on-land.⁸ Duty free spending by cruise travelers is consistently high across the global cruise industry and tends to outpace other sectors, such as airports, because cruisers are exposed far more frequently to duty free opportunities throughout the duration of their trip, and are likely to make multiple purchases.⁹

⁸ CiR, *North American & Caribbean Cruise Duty Free Retail Study 2015*.

⁹ Ibid.

Figure ES-5:
Proportion of Cruise Passengers Who Recall On-Board Services
U.S., Canada and Caribbean, 2015

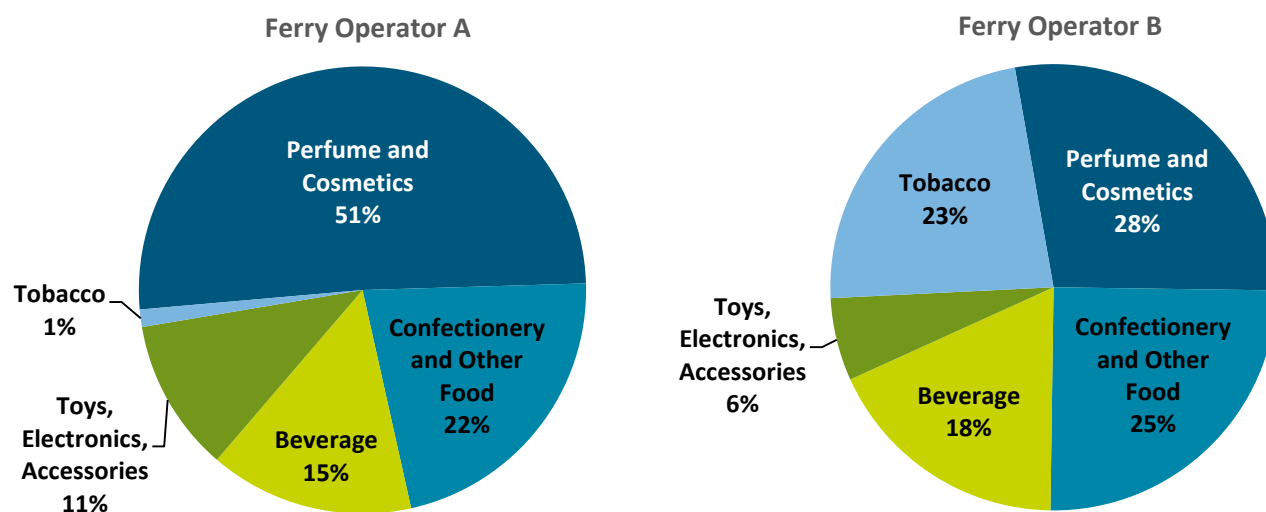


Note: Not all cruise liners in the region will offer all the services in the chart.
Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

Duty free and travel retail is a highly valued component of cruise travel in the region, considered by the majority of cruisers to be an important component of their vacation experience – and thereby an attractor for cruise travel.

International travel by ferry is less prevalent in the Americas relative to other regions, such as Europe, with the bulk of cross-border services offered among the island nations of the Caribbean and in some South American countries. **Figure ES-6** provides some insight into onboard duty free spending habits, with a comparison of two major ferry operators on routes between Buenos Aires, Argentina and Uruguay. Passengers on these routes, which range in duration from one to three hours, show a preference for purchasing duty free perfume and cosmetics, as well as food and beverage items while onboard. Other duty free items are offered onboard, including toys and electronics, but these make up a minority of duty free sales generated by the ferries.

**Figure ES-6: Proportion of Duty Free Sales during Ferry Travel, by Product Category
Select Routes between Argentina and Uruguay**



Source: Information collected by Asutil, on behalf of InterVISTAS Consulting.

Land Sales Channel

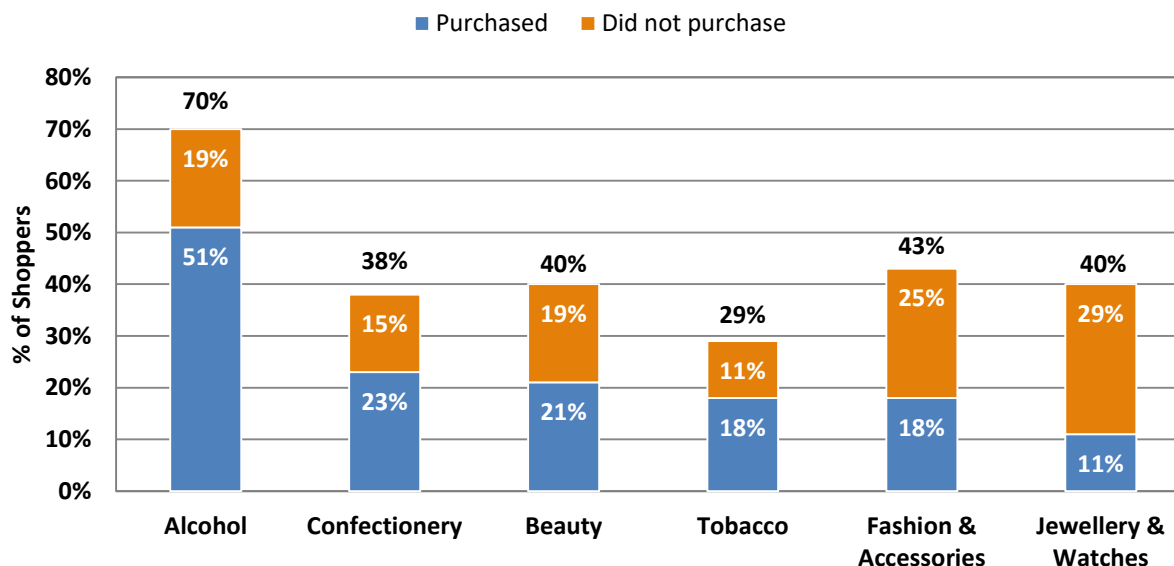
Other forms of international transport in the Americas, such as land travel, tap into a broader consumer base of leisure, business, and local travelers who make more frequent and comprehensive use of duty free and travel retail.¹⁰ Land border travel typically involves transportation by private or commercial vehicles, as well as foot traffic. Prior to undergoing screening by customs and border security, eligible travelers can often stop at duty free shops situated en-route to the crossing itself.

The Americas sees a large amount of duty free-eligible land border crossers relative to other regions. Duty free and travel retail is therefore a major sales generator near land borders and captures spending by customers who would otherwise be underserved by full-price retail in high-tax jurisdictions. Purchase conversion rates by shoppers at duty free shops near the U.S. borders are shown in **Figure ES-7**. The majority of shoppers (70%) browse for duty free alcohol, while 51% of shoppers ended up actually buying duty free alcohol. Canadians show a higher incidence of purchasing alcohol and tobacco – goods often subject to relatively higher taxes within Canada – compared with Americans and Mexicans. Although limited data is available for duty free spending in South America, one study estimated approximately US\$109 million (3.5 billion Uruguayan Pesos) in duty free spending along the Brazilian and Uruguayan border alone in 2016, indicating that duty free is even more popular in South America.¹¹

¹⁰ In addition to border crossings, there are duty free shops situated in downtown city centres and also diplomatic stores, which are not included in this study.

¹¹ Uruguay/Brazil Land Border Study, provided by DFWC. Currency conversion based on annual averages from Oanda (<https://www.oanda.com/currency/average>).

Figure ES-7: Purchase Conversion Rates of Shoppers, by Product – U.S. Land Borders, 2017



Source: American Border Stores Duty Free Retail Study, CiR

Economic Impacts

Duty free and travel retail contributes a significant number of jobs and, in turn, Gross Domestic Product (GDP) to the broader regional economy. It is estimated that duty free and travel retail in the Americas directly accounted for **61,400 jobs** in 2016, directly contributing **US\$8.2 billion to GDP**. Of these totals, spending in North America generated **20,400 jobs** and **US\$2.3 billion in GDP**, while spending in Latin America and the Caribbean generated **41,000 jobs** and **US\$5.9 billion in GDP**. See **Figure ES-8**.

The economic impact of duty free and travel retail does not end with the direct impacts. Other sectors of the economy benefit from duty free and travel retail operations. This includes indirect impacts in businesses that supply the goods and services to the direct activities linked to duty free and travel retail across the different sales channels, and induced impacts resulting from direct and indirect employees spending their wages in the general economy. Including these indirect and induced multiplier impacts, spending by international travelers on duty free and travel retail supports a total of **110,000 jobs** across all sales channels. The combined total (direct, indirect and induced) impact of duty free and travel retail in the Americas sums to approximately **US \$10.6 billion to GDP**.

Figure ES-8: Total Economic Impact of Duty Free and Travel Retail in the Americas, 2016

Sector	Total Jobs	Total GDP (US\$ Billions)
Aviation		
Direct	30,700	\$4.3
Indirect & Induced	23,900	\$1.2
Aviation Total	54,600	\$5.6
Maritime		
Direct	14,900	\$2.2
Indirect & Induced	14,400	\$0.6
Maritime Total	29,300	\$2.8
Land		
Direct	15,800	\$1.7
Indirect & Induced	10,300	\$0.6
Land Total	26,100	\$2.3
All Sales Channels		
Direct	61,400	\$8.2
Indirect & Induced	48,600	\$2.4
Overall Total	110,000	\$10.6

Note: Figures may not sum to totals due to rounding.

Furthermore, the economic impacts extend beyond the direct, indirect and induced impacts, and facilitate the business of other sectors of the economy through enhancing the visitor experience at a destination, providing a valuable net revenue stream to help offset airport costs, facilitating tourism by supporting the cruise industry, and creating opportunities for retail activity at land borders, among others. Thus, duty free and travel retail yields benefits beyond those to direct users and generates further positive impact on the performance and economic activity of a country. Duty free and travel retail is a facilitator of economic growth and development in a region. With continued growth in the duty free and travel retail sector, potential areas for improving duty free and travel retail in the Americas, and its associated economic benefits, include greater development of retail activity at airports in North America, continued support and improvement of opportunities for cruise travelers, and establishment of new duty free shops at land borders.

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1 Introduction

The duty free and travel retail industry contributes significantly to economic prosperity in the Americas both through the economic activity and employment it generates, but also because it facilitates and makes more profitable wider economic activity – in particular aviation and tourism, of which it is a key component, and which in turn is a key driver of the broader economy.¹² This study examines the economic impacts generated from duty free and travel retail sales and activities in 2016. It seeks to quantify the economic activity and employment derived from travel retail and duty free and also discusses the broader, catalytic effects it has on other sectors.

Economic impact is a measure of the spending and employment associated with a sector of the economy, a specific project, or a change in government policy or regulation. In this case, economic impact refers to the economic contribution associated with the duty free and travel retail sector through its various channels of distribution at airports, on airlines, at land border crossings and downtown duty free shops, and on cruises and ferries. The three major components of economic impact are classified as direct, indirect and induced impacts. Together, they provide a snapshot of economic activity and employment generated by the duty free and travel retail sectors in the Americas.

According to the Duty Free World Council (DFWC), duty free and travel retail is defined as:

*“a global industry that encompasses the sale of goods to international travelers. Duty free shops are exempt from the payment of certain local or national taxes and duties, normally with the requirement that the goods are only sold to travelers who will take them out of the country. Products that can be sold duty free vary by jurisdiction and different rules based on duty calculations, allowance restrictions and other factors.”*¹³

The duty free and travel retail industry, globally, is estimated to have generated in excess of \$60 billion annually in 2016.¹⁴

International travelers have access to a variety of products including fashion and accessories, alcohol, fragrances and cosmetics, food and confectionery, tobacco, and jewelry and watches. The continued growth and development of the duty free and travel retail sector supports transport modes through the financial contribution it makes, and global tourism by further incentivizing international travel by air, land and sea.

The DFWC commissioned a prior study for Europe, which was conducted in 2016, and has now commissioned this study for the Americas.¹⁵

¹² The Americas are defined as including North America, Latin America and the Caribbean. North America includes the U.S. and Canada only. Mexico is considered a part of Latin America and the Caribbean.

¹³ Source: <http://dfworldcouncil.com/what-is-duty-free-travel-retail/>

¹⁴ Source: Generation Research. Generation Research is a firm based in Sweden that provides data on duty free & travel retail statistics, globally. Their website can be found at: <http://www.generation.se/>

¹⁵ Economic Impact of duty free and travel retail in Europe, published at <http://dfworldcouncil.com/wp-content/uploads/2016/03/DFWC-European-Economic-Impact-Report.pdf>

This report is organized as follows:

- **Section 2** describes global duty free and travel retail trends and patterns, which provide valuable context on the size of the market and the sales channels globally and in the different geographies.
- **Section 3** provides details on the overall duty free and travel retail industry in the Americas.
- **Section 4** describes duty free and travel retail in the aviation sales channel in the Americas, including airport and airline sales channels.
- **Section 5** describes duty free and travel retail in the maritime sales channel in the Americas, including cruise and ferry sales channels.
- **Section 6** describes duty free and travel retail in the land based travel sales channel in the Americas, including operations at border crossings and downtown duty free shops.
- **Section 7** summarizes the economic impact of duty free and travel retail operations in the Americas through all sales channels. It seeks to quantify the economic activity and employment generated. The broader role of duty free and travel retail in facilitating economic growth and development in a region is also discussed. It reviews where there might be scope for enhanced duty free and travel retail to make a greater contribution to overall economic activity, based on the differences across the region discussed in earlier sections.
- **Section 8** provides a summary of the study's results and conclusions.

2 Global duty free and travel retail trends and patterns

Key Figures

- Total global duty free and travel retail sales have **tripled**, from an estimated **US\$20 billion** in 2000 to an estimated **US\$60 billion** in 2016.
- The Americas accounted for **17%** of global duty free and travel retail sales in 2016.
- The compound annual growth rate from 2000 to 2016 in global duty free and travel retail sales is **7%**.
- Fragrances/cosmetics, wines/spirits, and fashion/accessories account for approximately **65%** of total sales in the duty free and travel retail sector.

2.1 Overview

This section provides a detailed overview of the global duty free and travel retail sector. Information is provided by world region, sales channel and product group, where possible. Historical time series data is also provided to show the change in the sector over time, where possible. The data presented in this section are provided by Generation Research, unless otherwise specified.¹⁶

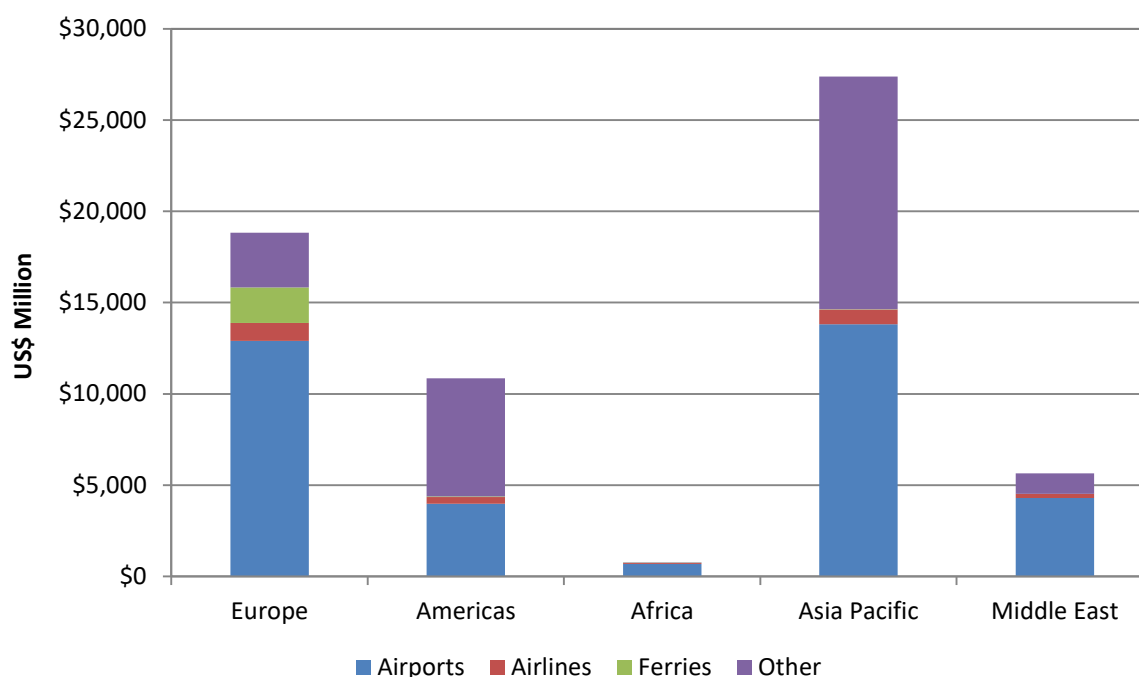
As defined by DFWC, duty free and travel retail is a sector that includes the sale of goods to international travelers. Duty free and travel retail products are purchased by residents and visitors alike when leaving a country, and the products will be taken outside of the country for consumption and enjoyment. Duty free and travel retail is available for purchase at airports and on airlines, on cruises and ferries and also at land border crossings or at downtown duty free shop locations.

Total global duty free and travel retail sales are estimated to exceed US\$60 billion. **Figure 2-1** shows total duty free and travel retail sales, by world region and sales channel in 2016. Sales in Asia Pacific and Europe made up over 70% of global sales. The Americas made up 17% of global duty free and travel retail sales overall. While the size of the duty free and travel retail sector has grown, the relative share of global sales in the Americas has lagged behind other world regions, especially Asia Pacific which has become the global leader since 2009. However, the Americas have gained some ground relative to Europe since the early 2000s, when duty free and travel retail sales in the Americas were roughly 50% of the sales in Europe. In recent years, sales in the Americas have been approximately 60% of those in Europe.

¹⁶ Generation Research is a firm based in Sweden that provides data on duty free & travel retail statistics, globally. Their website can be found at: <http://www.generation.se/>

With respect to sales channels, airports are the most used sales channel for the purchase of duty free and travel retail. This is the case for all world regions with the exception of the Americas where the “other” category appears to contribute a larger share of sales to the sector, as shown in **Figure 2-2**. Per the data that is provided by Generation Research, the “other” category comprises an aggregated total for land border shops, diplomatic stores (*which are not included in this study*), downtown shops, port shops and cruises.¹⁷

Figure 2-1: Duty free and travel retail sales by region and sales channel, 2016

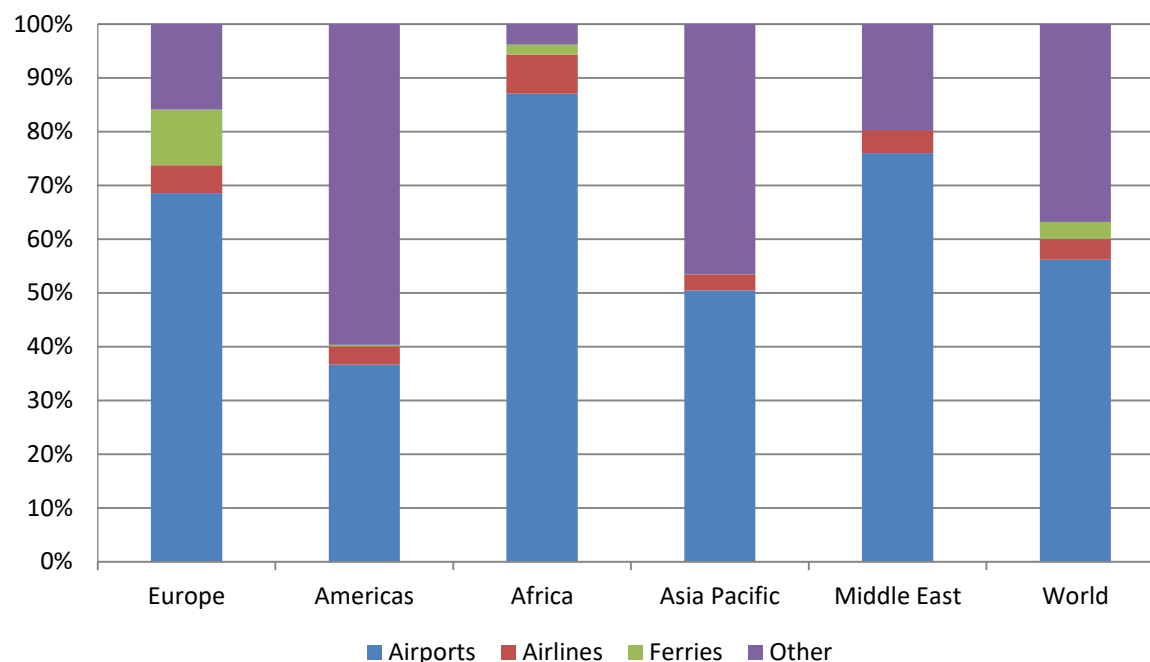


Source: Generation Research. The “Other” category includes: land border shops, diplomatic stores (*which are not included in the study*), downtown shops, port shops and cruises.

Note: The airport share and volume of duty free and travel retail sales presented in **Figure 2-1** appears to be understated for the Americas. Inter VISTAS Consulting compared the data sourced from Generation Research with information provided by ACI-NA and also Moodie Davitt, both of which show higher sales in duty free and travel for the airport sector than do Generation Research’s figures. As such, the Inter VISTAS opted to use information from Moodie Davitt and ACI-NA as the basis for the economic impact analysis for the airport sector, presented in **Section 7**. With respect to data for the airlines, ferries and “other” sales channels, the information provided by Generation Research is the best available and is used in the computations of economic impact that is displayed in **Section 7**. These information sources are further described and explained in **Appendix A**.

¹⁷ Per Generation Research, a further breakdown of the components of the “Other” category is not available.

Figure 2-2: Duty free and travel retail sales channel shares by region, 2016



Source: Generation Research.

2.2 Sales Growth

Duty free and travel retail sales volume has grown since 2000; the compound annual growth rate globally has been 7% (as shown in **Figure 2-3**) from 2000 to 2016, whereas nominal world Gross Domestic Product (GDP) has grown 5.2% per year from 2000 to 2016.¹⁸ The largest growth in sales over the past 16 years has been in Asia Pacific and the Middle East, with a compound annual growth rate of 13% and 12% respectively. The Americas has grown moderately, trailing the global rate, at 5%. Global sales have increased from US\$60 billion to US\$63 billion from 2013 to 2016, with increases in Asia Pacific offsetting declines in Europe, the Americas and Africa over the same time frame. The Middle East was up marginally over the same time period.

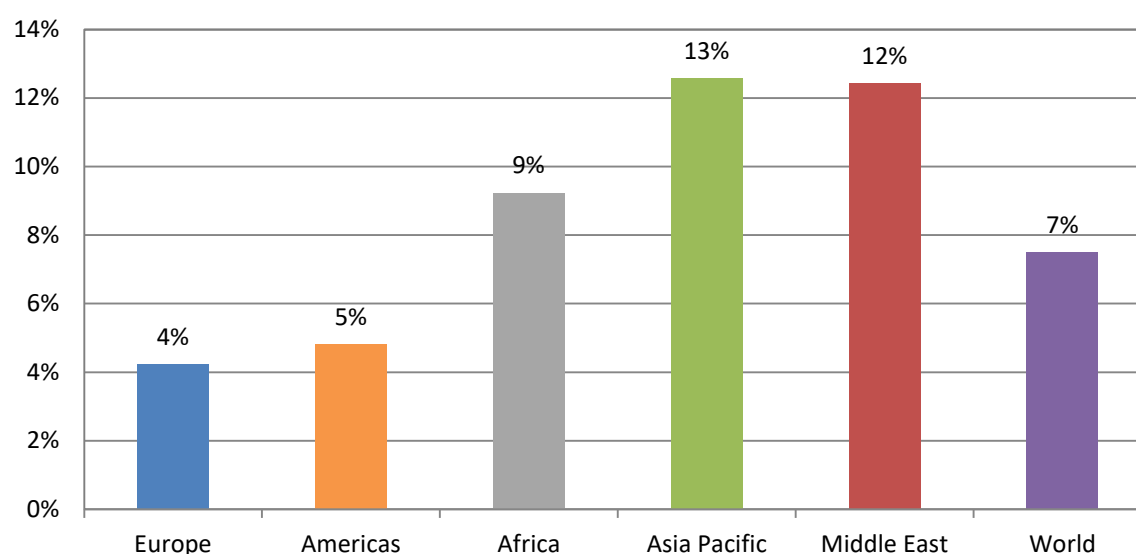
In 2000, Europe led the sector with 50% of global sales;¹⁹ however, by 2016, Asia Pacific had taken the lead with 43% of overall global sales, up from 27% in 2009. Over this period, sector sales have grown three-fold from US\$20 billion to over US\$60 billion. **Figure 2-4** and **Figure 2-5** show the volume of sales by region and the regional share of duty free and travel retail sales, respectively.

¹⁸ Source: Worldbank.

¹⁹ The year 1999 was a seminal moment for duty free in Europe as all intra-EU duty free sales were abolished. This meant that all intra-EU travel effectively became domestic travel, thus passengers on those air services, did not qualify for duty free pricing. To maintain the business, duty free retailers absorbed VAT and discounted prices on products; but there was a swift change in buying behaviour by passengers, which saw sales drop significantly and margins reduced.

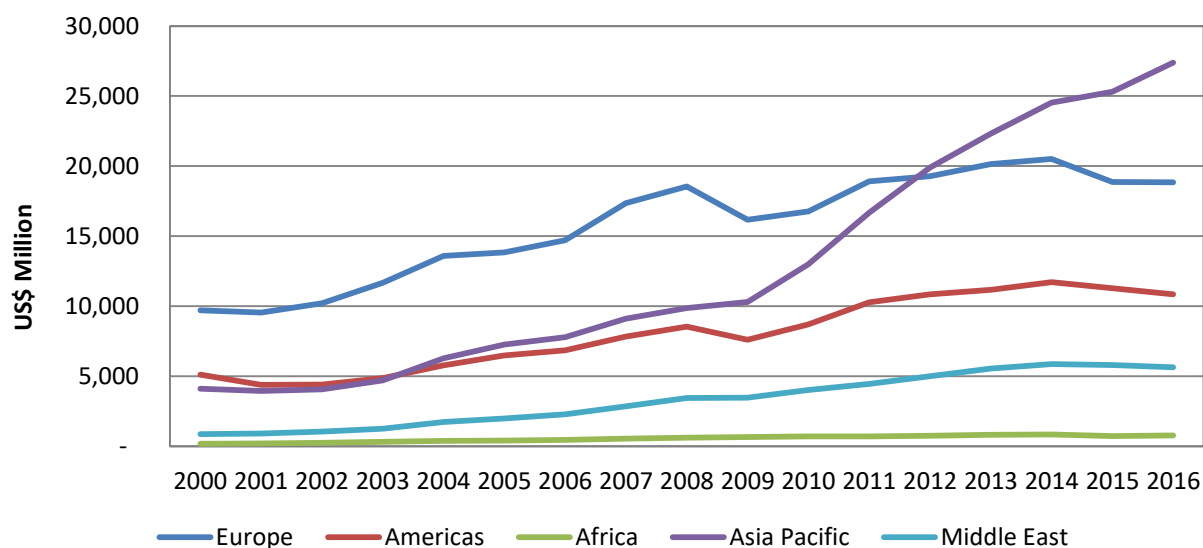
Asia Pacific's duty free and travel retail market has benefited from strong traffic growth that has been associated with rising wealth, affluence and increases in GDP. There has also been development of buying behaviour, in particular of Chinese travelers' desire to purchase genuine products at discounted prices to bring back to China. A significant portion of duty free and travel retail sales in Korea are courtesy of Chinese buyers. Lastly, the growth in low-cost carrier market share has facilitated less expensive air travel enabling a larger segment of the population to experience travel, and thereby expanded the market for duty free and travel retail in the region.

Figure 2-3: Duty free and travel retail sales growth, compound annual rate, 2000-2016



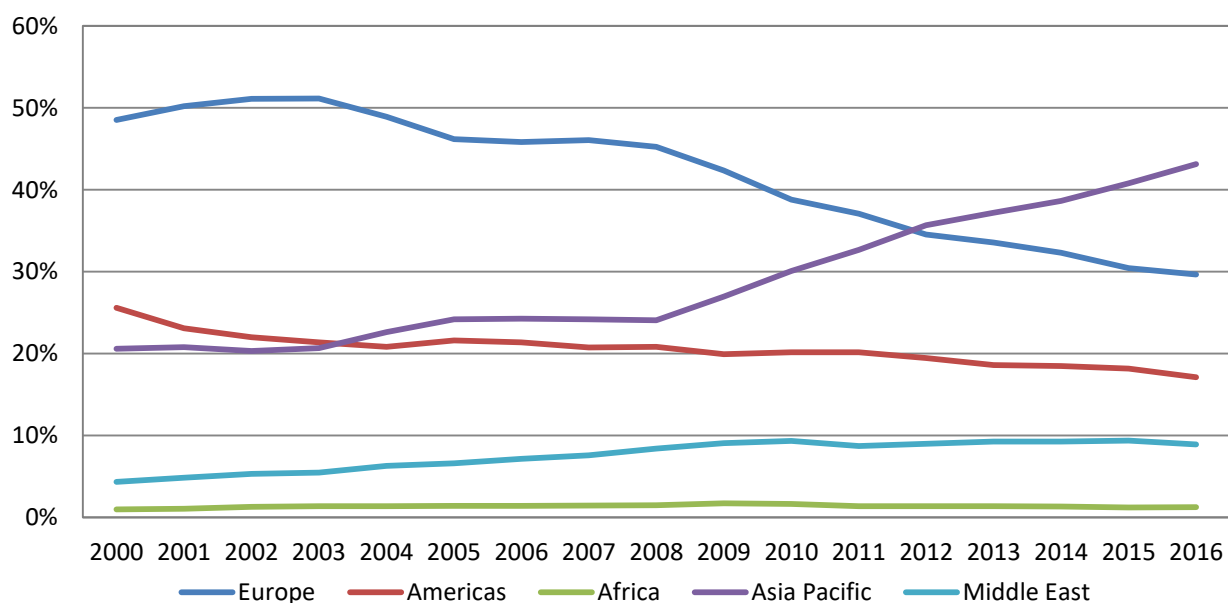
Source: Generation Research and InterVISTAS Consulting Inc. computations.

Figure 2-4: Duty free and travel retail sales by region, 2000-2016



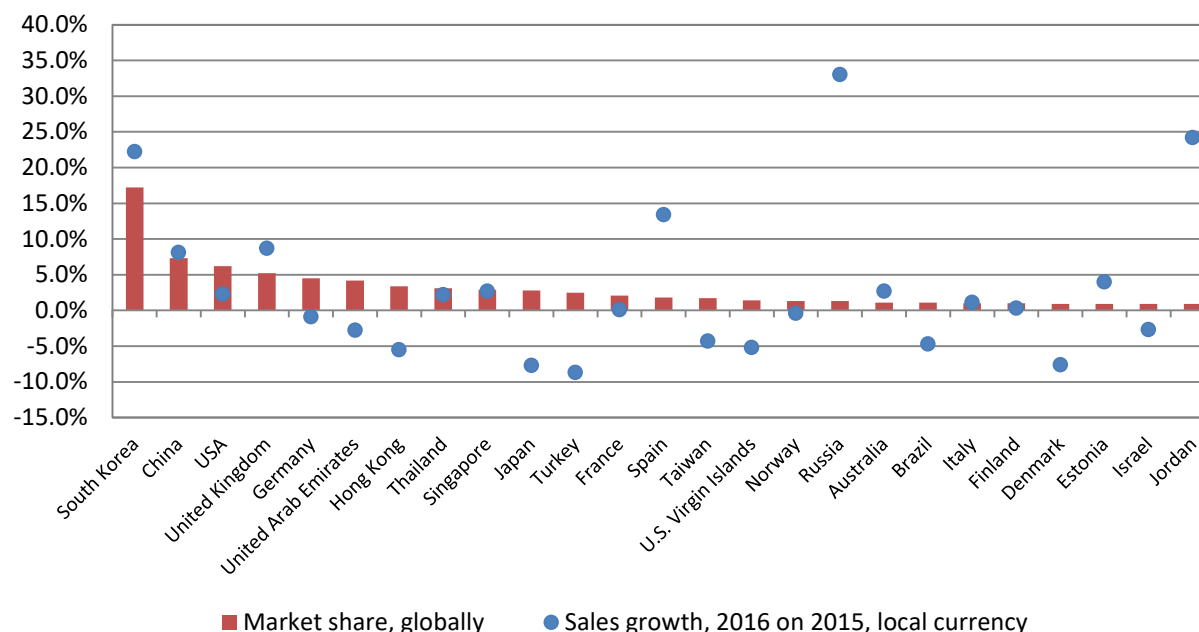
Source: Generation Research.

Figure 2-5: Duty free and travel retail sales, regional shares, 2000-2016



Source: Generation Research.

Figure 2-6:
Market share and annual growth rate of duty free and travel retail sales (selected countries), 2016



Source: Generation Research.

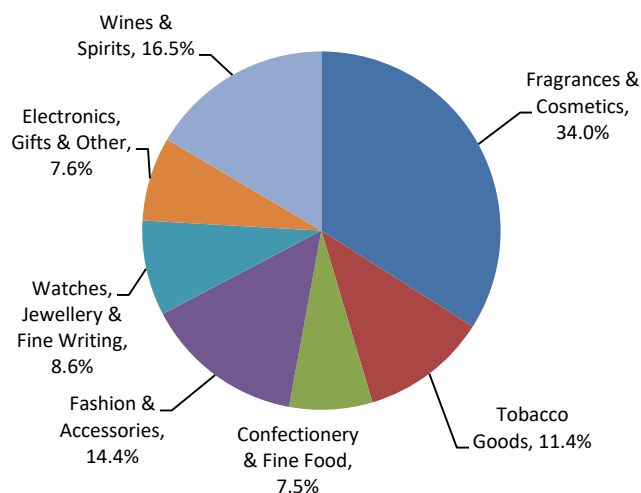
As shown in **Figure 2-6**, South Korea is a leader in duty free and travel retail sales, accounting for over 17% of global sales in 2016 and also exhibiting a growth in sales of over 22% from 2015 to 2016. China holds second spot with 7% of global sales in duty free and travel retail, and the U.S. comes in third overall with 6% of global sales. The UK and Germany round out the top five countries in terms of duty free and travel retail sales. In 2016, Germany took over 5th place from Hong Kong, which held that spot previously.

2.3 Product Categories

The main product categories available for purchase in duty free and travel retail include (*in order of magnitude of sales from largest to smallest*) fragrances and cosmetics, wines and spirits, fashion and accessories, tobacco goods, watches, jewelry and fine writing, electronics, gifts and other and confectionery and fine foods. The top three product categories make up roughly 65% of total sales in the duty free and travel retail sector, as shown in **Figure 2-7**. **Figure 2-8** shows the breakdown of total duty free and travel retail sales, by world region.

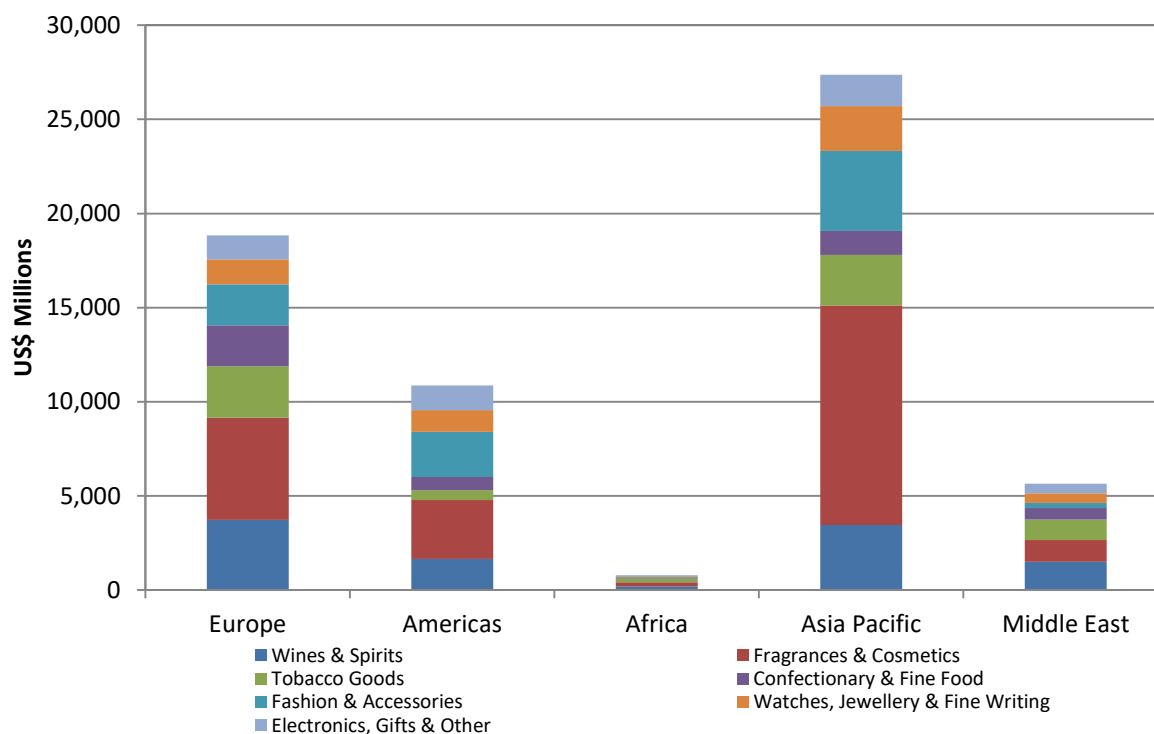
Figure 2-9 shows a comparison of percentage sales per product category across different world regions. Generally speaking, the top three product categories are similar for all world regions, with a few exceptions. Wines and spirits, fragrances and cosmetics and tobacco goods are the top product categories for Europe, Africa, and Middle East. For the Americas and Asia Pacific, fashion & accessories is a top product category rather than tobacco goods.

Figure 2-7: Global duty free and travel retail sales, product category market shares, 2016



Source: Generation Research.

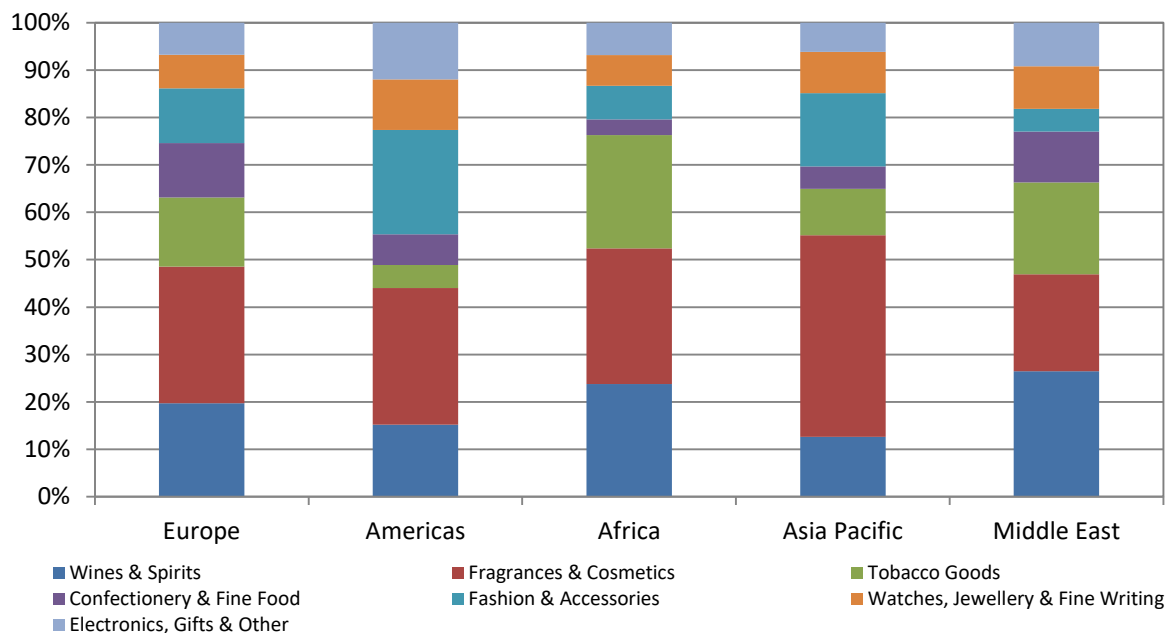
Figure 2-8: Sales by product group and region, 2016



Source: Generation Research.

Globally, fragrances and cosmetics make up 34% of the total duty free and travel retail sales. It is the top product category in all regions, except for the Middle East, where wines and spirits is the top product category by sales. In 2016, fragrances and cosmetics were more than double the sales of wine and spirits, which make up over 16% of global sales. The product category that has shown the greatest growth has been fashion and accessories with sales estimated at US\$9 billion in 2016, compared to US\$1.2 billion in 2000, and its share of total sales increasing from 6% in 2000 to over 14% in 2016. Fragrances and cosmetics grew from US\$4.4 billion in 2000 to over US\$21 billion in 2016. The total sales of tobacco products have been relatively flat over the past six years with approximately US\$7 billion in sales, resulting in a decline in the share of tobacco sales in a growing total duty free and travel retail sector. Tobacco goods made up 21% of global duty free and travel retail sales in 2000, but only 11% in 2016.

Figure 2-9: Product group market share, by region, 2016



Source: Generation Research.

2.4 Summary

Globally, the duty free and travel retail sector has experienced significant growth since 2000, when the sector was estimated to generate US\$20 billion in sales. It has now grown more than three-fold to over US\$60 billion in 2016. Europe was the leader in global share during the early 2000s; however, Asia-Pacific, while steadily increasing from 2000-2008, surged around the time of the global economic downturn in 2008/2009 most likely due to the emergence of Chinese travellers and has maintained its lead in duty free and travel retail sales in recent years. Asia Pacific's duty free and travel retail sales in 2016, estimated to be US\$27 billion, are now larger than the global industry was (in nominal terms) in 2000.

3 Duty free and travel retail trends and patterns in the Americas

Key Figures

- Nearly **50%** of duty free and travel retail sales in the Americas is in the aviation sales channel.
- By comparison, the maritime and land sales channels are approximately **26%** and **24%** of total sales, respectively.
- In 2016, total duty free and travel retail sales in the aviation sector were estimated at nearly **US\$1.9 billion** in the U.S. and Canada and **US\$4.8 billion** in Latin America and the Caribbean.

3.1 Overview

The role of duty free and travel retail in the Americas is distinct from any other region, with important differences across its own sub-regions and countries. This chapter introduces the region and summarizes the key duty free and travel retail trends for the region as a whole, while subsequent chapters outline trends in each sales channel.

The Americas is a region defined by diversity. Encompassing several dozen countries and territories in both the northern and southern hemispheres, it includes a total population of less than 1 billion people but among the widest variances in economic development, forms of governance, and prosperity. The scope of our analysis is defined according to the sub-regions and countries listed in **Figure 3-1**.

Figure 3-1: Geographic Scope of the Americas Region

Geography (Sub-Region / Country)	Population (Millions, 2016)	GDP (US\$ Millions, 2016)	GDP per Capita (US\$ Millions, 2016)	Source
North America				
Canada	36.23	1,529,224	42,210	IMF
United States	323.30	18,569,100	57,436	IMF
Latin America – Caribbean				
Argentina	43.60	545,124	12,503	IMF
Aruba	N/A	N/A	N/A	N/A
Bahamas	0.37	8,939	24,272	IMF
Barbados	0.28	4,588	16,363	IMF

Geography (Sub-Region / Country)	Population (Millions, 2016)	GDP (US\$ Millions, 2016)	GDP per Capita (US\$ Millions, 2016)	Source
Belize	0.38	1,743	4,636	IMF
Bermuda	0.07	6,000	71,875	https://www.gov.bm/sites/default/files/GDP-2016-annual-publication.pdf
Bonaire, Sint Eustatius And Saba	N/A	N/A	N/A	N/A
Brazil	206.00	1,798,622	8,727	IMF
Cayman Islands	N/A	N/A	N/A	
Chile	18.20	247,025	13,756	IMF
Colombia	48.75	282,357	5,972	IMF
Costa Rica	4.91	58,109	11,834	IMF
Cuba	11.48	87,133	7,593	WorldBank, Unreliable data
Curaçao	0.15	3,100	20,805	Estimated by CIA in 2012
Dominican Republic	10.08	72,194	7,159	IMF
Dutch Caribbean	N/A	N/A	N/A	N/A
Ecuador	16.53	98,010	5,929	IMF
El Salvador	6.15	26,709	4,343	IMF
French Guiana	N/A	N/A	N/A	N/A
Guadeloupe	N/A	N/A	N/A	N/A
Guyana	0.77	3,437	4,475	IMF
Honduras	8.19	21,634	2,609	IMF
Jamaica	2.83	13,950	4,939	IMF
Martinique	N/A	N/A	N/A	N/A
Mexico	122.27	1,046,002	8,555	IMF
Nicaragua	6.15	13,049	2,120	IMF
Panama	4.04	55,122	13,654	IMF
Paraguay	6.86	27,441	4,003	IMF
Peru	31.48	195,140	6,199	IMF
Puerto Rico	3.41	101,304	29,697	IMF
Saint Lucia	0.18	1,667	9,365	WorldBank
Suriname	0.56	3,278	5,875	WorldBank
Trinidad And Tobago	1.37	20,966	15,342	IMF
Uruguay	3.48	54,657	15,679	IMF
Venezuela	31.03	287,274	9,258	IMF
Aggregate	1,014	27,644,720	485,311	

Note: N/A = not available.

With respect to assessing duty free and travel retail in the Americas, international transportation is best categorized into three major modes – aviation, maritime (i.e. cruise and ferry travel), and land. The duty free and travel retail industry in the Americas is comprised of approximately 50% in the aviation sales channel (airports and airlines) as shown in **Figure 3-2**. However, the maritime and land sectors each

provide notable contributions to the duty free and travel retail sector (more so within certain sub-regions and countries) and, given sectoral differences related to duty free regulations and consumer practices, they are best categorized separately.

Figure 3-2: Total Duty Free and Travel Retail Sales in the Americas, 2016

Sales Channel	North America Total Sales (US\$ Billions)	Latin America & Caribbean Total Sales (US\$ Billions)	Americas Total Duty Free and Travel Retail Sales (US\$ Billions)
Aviation	\$1.9	\$4.8	\$6.7
Maritime	\$0.3	\$3.1	\$3.4
Land	\$1.6	\$1.1	\$2.8
Total	\$3.9	\$9.0	\$12.9

Sources: ACI North America reports, ACI World Key Performance Indicators Report 2016, Generation Research, Cruise Lines International Association, Counter Intelligence Retail Ltd., Canadian Border Services Agency and InterVISTAS Consulting analysis.

Note: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings and downtown duty free shops. North America includes the U.S. and Canada only. Mexico is included in Latin America & Caribbean.

The total sales estimated for the airport channel is based on analysis conducted by InterVISTAS Consulting using data from ACI-NA and Moodie Davitt. The Generation Research data on the airport channel appears to under estimate the total sales for the region. The estimated duty free and travel retail sales for the airline, ferries, cruise and land sales channels are sourced from Generation Research.

3.2 Aviation Sales Channel

In 2016, total duty free and travel retail sales in the aviation sector across the Americas were estimated at \$6.7 billion, of which US\$1.9 billion of sales occurred in the U.S. and Canada and US\$4.8 billion in Latin America and the Caribbean, most of which was generated within airport terminals..

Duty free purchase rates and average spend tend to be lower in the U.S. compared to other countries in the Americas, as well as most other regions in the world. For instance, the average spend per departing passenger in Latin America is roughly three to four times the average spend per departing passenger in the U.S. This is partly due to higher tax rates in South America which encourage greater spending on duty free, coupled with higher exemption rates. Further, in countries like Brazil, purchases are made mostly by locals due to the availability of high purchase exemptions and high duty free allowances when travelling internationally. Most purchases are made at arrivals duty free shops.²⁰

²⁰ For example, the quantity limits for Brazil include 12 litres of alcohol, which compares to Canada where the limit is 1.5 litres of alcohol, or a little more than 10% of the limit for Brazil. Additionally, there is a price differential for alcohol and fragrances in duty free shops compared to downtown (high street) locations, thus driving local Brazilians to make duty free purchases upon arrival.

Canadian airports also differ from the U.S. in terms of duty free and travel retail purchasing habits; with higher average spend rates that are more akin to regions like Europe and the global average overall. In addition, duty free and travel retail is still offered by Canadian airlines as an inflight service, whereas U.S. carriers have phased out the offering over the last several years.

Retail space, while growing in magnitude, is generally less developed and less utilized in the Americas relative to other regions. Current literature on consumer behaviour emphasizes the unique conditions within an airport environment that generally induces passengers to shop and buy duty free, particularly dwell time and the role it plays in increasing susceptibility to impulse purchases. This may in part explain why average duty free spend in the Americas, particularly the U.S., is relatively lower, given that airports in this region show shorter dwell times compared to Europe.

In addition, airports throughout the Americas are subject to an array of different governance regimes which generate different incentives regarding the level of investment and dependency on non-aeronautical or commercial streams of revenue such as duty free and travel retail.

3.3 Maritime and Land Sales Channels

Based on data from Generation Research and InterVISTAS analysis, land borders and maritime duty free and travel retail sales in the Americas is equivalent to approximately US\$6.1 billion. This includes duty free purchases made by passengers during cruises (at shops either onboard the ships themselves or onshore at ports of call), ferries, and at land border crossings. Duty free sales from these sectors totaled over US\$1.9 billion in the U.S. and Canada in 2016, and a further US\$4.2 billion in Latin America and the Caribbean.

Of the maritime and land sectors, cruises dominate the total duty free and travel retail spend in Latin America and the Caribbean (74% of sales from maritime and land travel in the sub-region), whereas land borders generate significantly more sales than cruises and ferries in North America (land borders account for 84% of sales from maritime and land travel in the sub-region). This sub-regional discrepancy is attributable to the dominance of cruise tourism in the Caribbean – by far the largest cruise market in the world and a key source of growth for the region's tourism-dependent economies. The Caribbean cruise experience can be vastly different than those in other world regions (for instance, river cruises in Europe), with ships transporting thousands of vacationers at a time for durations of one week or longer. Similarly, albeit to a lesser scale, international ferry travel is more pervasive among the island nations of the Caribbean and across certain countries in South America than, for instance, in North America.

Overall, vacation cruises and cross-border ferry travel enjoy fewer tourism opportunities in the U.S. and Canada. For instance, Alaska is the largest cruise market in North America but is only a fraction of the size of the Caribbean cruise market. Instead, non-aviation duty free and travel retail sales in North America are dominated by land border travel, which serves a broader market than just vacation travelers and does so in far greater numbers relative to cruise and ferry transport.

4 *Aviation Sales Channel:* Duty free and travel retail in the Americas

Key Figures

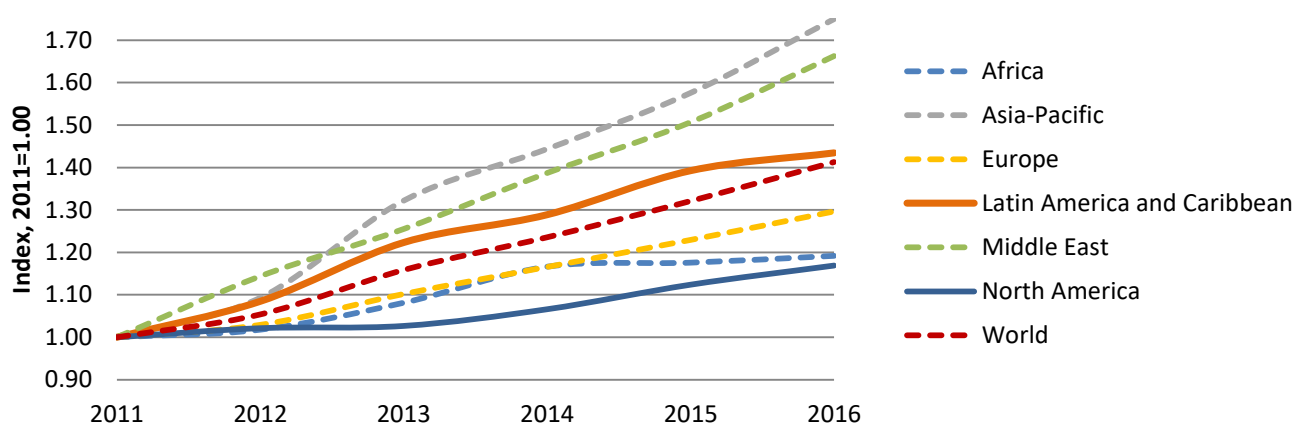
- Total estimated duty free and travel retail sales in the aviation sales channel is \$6.7 billion.
 - Total direct jobs associated with this sales channel is 30,700.
 - Total direct GDP associated with this sales channel is US\$5.6 billion.
- European airports generate **>US\$10 per passenger** in non-aeronautical revenue, compared to **<US\$6 per passenger** in North America and **US\$6.40 per passenger** in Latin America and the Caribbean.
- Airport retail concessions make up **9%** of airport non-aeronautical revenues in North America, compared with **30%** in Latin America and Europe, and **44%** in Asia Pacific.
- Duty free retail in North America accounts for **50%** of airports' concession revenue, compared to **71%** in Latin America and the Caribbean and **74%** globally.
- **7.1%** of total airport revenues in Canada are related to terminal retail (similar to the global average), compared to **3.9%** in the U.S.
- Airport retail concession revenue per passenger is **US\$0.47** in the U.S.; **US\$1.60** in Canada; **US\$2.28** in Asia Pacific; and **US\$3.32** in Europe.
- Airline duty free and travel retail sales in 2016: Europe **US\$979 million**; Asia Pacific **US\$813 million**; Americas **US\$371 million**; Middle East **US\$245 million**; and Africa **US\$57 million**.

This chapter highlights the role of duty free and travel retail in the aviation sales channel (i.e., airports and airlines) in the Americas. Travel retail is generally available in-terminal to both domestic and international passengers.²¹ However, for duty free goods specifically, there are two key sources through which air passengers have the opportunity to shop – at select stores within airport terminals available to international passengers only, as well as through inflight offerings from airlines travelling on international flights. Though these sources compete to some extent over retail demand, the combination of both airport and airline participation in the retail market has expanded passengers' retail exposure and choices, while at the same time growing the duty free and broader travel retail sector into an important part of the aviation industry.

²¹ Note that the scope of this study encompasses the duty free and travel retail that is sold to international passengers only. This is consistent with the Duty Free World Council's definition of duty free and travel retail. See <http://dfworldcouncil.com/what-is-duty-free-travel-retail/>.

As summarized in **Section 2** and **Section 3**, the development of retail in the aviation sector depends on a variety of factors and constraints that affect the entire travel industry in the Americas. However, continued growth in the demand for air travel has created a well-established channel for duty free and travel retail consumption. **Figure 4-1** compares regional trends in air passenger traffic between 2011 and 2016. Globally, air passenger traffic has grown steadily at a compound annual growth rate (CAGR) of 7.2%, spurred primarily by double digit annual growth in Asia-Pacific and the Middle East (CAGR of 11.8% and 10.7%, respectively). Latin America and the Caribbean have kept pace with worldwide average passenger growth, with a CAGR of 7.5%. Conversely, air passenger traffic in the mature North American market has grown more slowly than in any other region at a CAGR of 3.2%. Altogether, air passenger traffic throughout the Americas has grown, on average, at a similar pace to traffic in Europe.

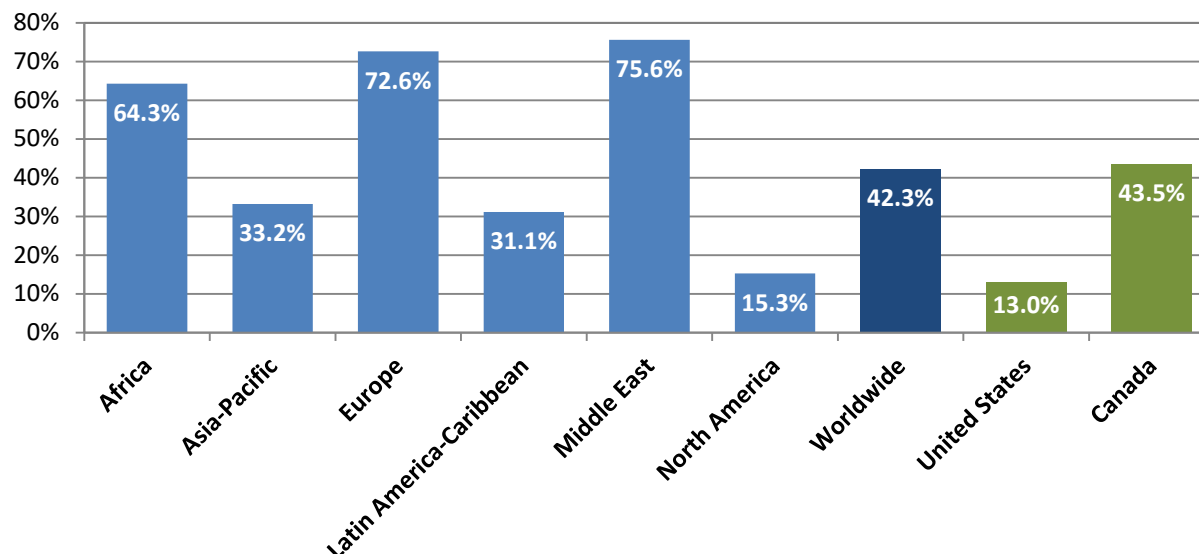
**Figure 4-1: Air Passenger Traffic Index (2011 = 1.00)
By Region, 2011-2016**



Source: InterVISTAS analysis of ACI passenger data from the World Air Traffic Report.

For duty free retail specifically, the opportunity for revenue generation and growth in the aviation sector can be affected by passenger mix, specifically the degree of international traffic handled at a given airport or region and also differences in the passenger origins which may play a role in propensity to spend on duty free and travel retail. The U.S. is a key example of this, as shown in **Figure 4-2**, being dominated by domestic air travel, well above and beyond what is seen on average in other regions of the world. In comparison, Canada has a much higher share of international passenger traffic that is in line with the global average.

Figure 4-2:
Share of International Passenger Traffic, By Region and Select Country, 2016



Source: ACI World Traffic Report 2016.

4.1 The Airport sector

Airports are major generators of economic activity and are often among the largest employers within their catchment area. In turn, airport duty free and travel retail plays a role in supporting the airport business as a whole, particularly in cases where airports seek to advance their non-aeronautical revenue opportunities and enhance their ability to increase product offerings to service their customers.

The following sections provide regional comparisons (and country level comparisons, where possible) on the key factors driving the scale of duty free and travel retail operations at airports. This analysis indicates that retail is less pervasive, and perhaps less developed, at airports in some parts of the Americas relative to other areas in the Americas and in the world. Most notably, the use and development of duty free and travel retail in U.S. airports appear to lag behind what is found further south in Latin America and the Caribbean, and in Canada. Nonetheless, retail has become a substantial part of airport operations in the region as a whole.

4.1.1 Data Sources

In assessing the conditions of retail infrastructure, experience and spending habits at airport terminals throughout the Americas, **Section 4.1.2** and **Section 4.1.3** draw mainly upon two key sources of data from Airports Council International, listed below. Both sources refer to sample data from a large number and variety of airports within each region, but it is noted that the specific airports included within each dataset are not identical.

- **Airport Economics Report: Key Performance Indicators 2016** – this report provides worldwide data from a large sample of airports in each global region. The data includes ACI's own survey data as well as publicly available financial information. The North America sample includes 141 U.S. airports and 12 Canadian airports. The Latin America and Caribbean sample includes a total of 182 airports throughout the sub-region (including Mexico).²²
- **2016 Concessions Benchmarking Survey** – this report provides concession data on a large sample of airports in the U.S. and Canada only. The data includes ACI-NA's (ACI North America) own survey data, filled out by participating airport authorities. The sample includes 83 U.S. airports and nine Canadian airports.

In addition, **Section 4.1.3** outlines retail trends at the top 30 international airports in the U.S. and Canada, using selected data provided by ACI-NA specifically for the conduct of this study for the DFWC.²³ This subset is comprised of the top 24 U.S. and six Canadian international airports, by international passenger traffic. It is noted that the larger samples from the 2016 Key Performance Indicators and Concessions Benchmarking is likely to incorporate the largest international airports in North America (i.e. similar to the subset data) as well as several smaller international (and larger domestic) airports in the sub-region; thus, the data across each of these sources including regional averages are not directly comparable.

4.1.2 Revenue Generation at Airport Terminals

The financial performance of airports is dependent on two general sources of revenues: aeronautical fees from the provision of air transportation, and non-aeronautical or commercial revenues from other business activities conducted at or by the airport. Duty free and travel retail contributes toward non-aeronautical revenue, which has become a growing source of revenue for airports worldwide.

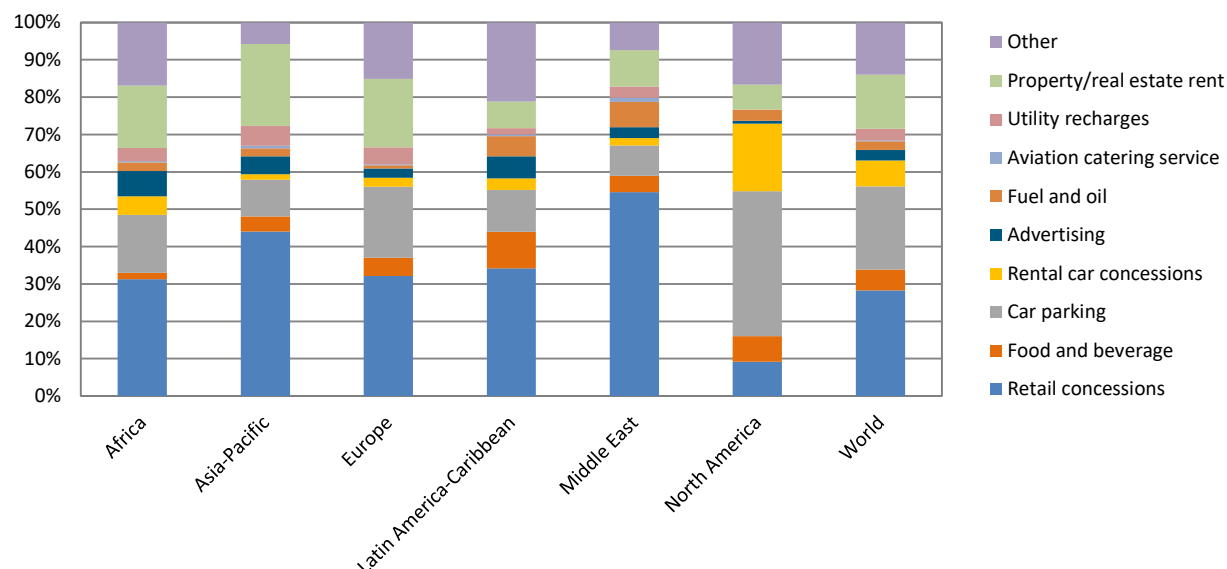
Non-Aeronautical Revenues

The profile of non-aeronautical business at North American (U.S. and Canada) airports is quite different from that in the rest of the world. In North America, non-aeronautical revenue comes mainly from car rental and car parking business revenue segments (57% of total non-aeronautical revenues), whereas all other world regions (including Latin America and the Caribbean) predominantly rely on retail concessions as their single largest source of non-aeronautical revenue, as shown in **Figure 4-3**. Retail concessions make up only 9% of non-aeronautical revenues in North America, compared with over 30% for airports in Latin America and Europe and 44% in Asia-Pacific. The profile of Latin America and the Caribbean's non-aeronautical revenue reflects much more closely that of the Europe and Asia-Pacific regions.

²² ACI World's Key Performance Indicators Report 2016 was used in this study, which presents data for 2015. As this was the latest available report when this study commenced, data used in this study is based on this earlier data collection. It is noted that since the preparation of this study, ACI World has released the 2017 Key Performance Indicators Report 2017, which presents data for 2016.

²³ This subset data is also mentioned periodically throughout Sections 4.1.2 and 4.1.3.

Figure 4-3:
Sources of Non-Aeronautical Revenue, by Region, 2015

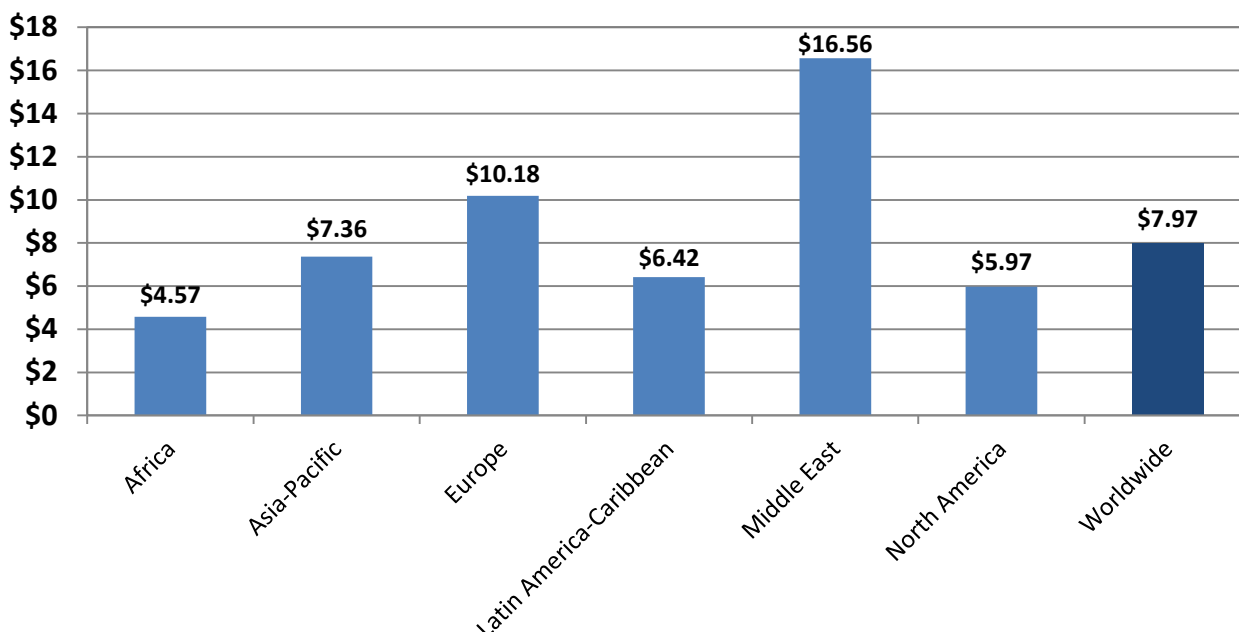


Source: ACI-NA, Concessions Benchmarking Survey 2016.

Furthermore, airports in the Americas generate lower levels of non-aeronautical revenue per passenger than those in Europe and Asia Pacific. European airports generate almost double the non-aeronautical revenue (over US\$10 per passenger) compared to North American airports (under US\$6 per passenger) and Latin American and Caribbean airports (US\$6.40 per passenger). In particular, the average non-aeronautical revenue per passenger at Brazilian airports is US\$4.10, while the average non-aeronautical revenue per passenger at Caribbean airports is US\$6.15. Refer to **Figure 4-4** for further regional breakdowns of non-aeronautical revenue per passenger.

Focusing on the subset data that is available for the largest international airports in the U.S. and Canada only, the average non-aeronautical revenue per passenger in Canada is US\$8.81, compared to US\$5.88 in the U.S. The six largest airports in Canada are achieving average non-aeronautical revenues per passenger that more closely resemble European airports. Refer to **Section 4.1.3** for more details.

Figure 4-4:
Non-Aeronautical Revenue per Enplaned/Deplaned Passenger, by Region, 2015



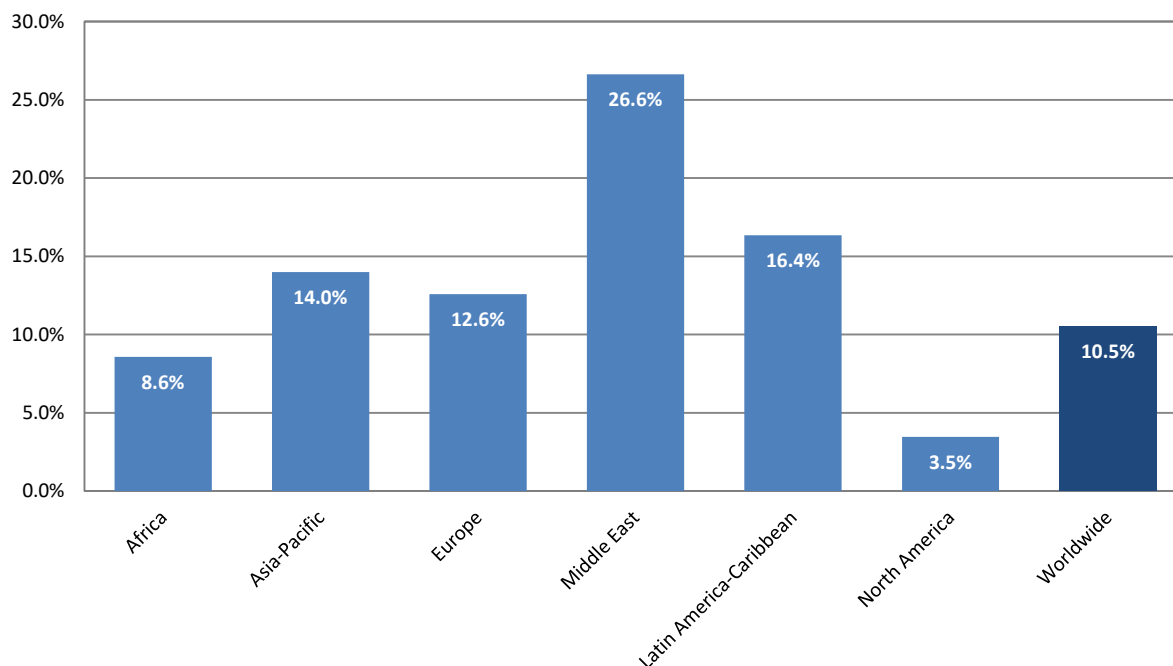
Source: ACI World, Key Performance Indicators 2016.

Retail Revenues

In this context of more limited commercial operations overall, the role of retail in U.S. airports is less pronounced. For North America, the concession revenue per passenger is much lower than that generated in other geographies. For example, European airports average US\$3.32 of concession revenue per passenger while Asia-Pacific airports average US\$2.28 per passenger. Latin America and Caribbean airports average US\$2.51 of concession revenue per passenger, which is in the same range as airports in Europe and Asia Pacific regions. In North America, the retail revenue per passenger is roughly one-quarter of the global average and this is largely driven by the performance of airports in the U.S. The lower allocation of retail space and shorter dwell times in North America impacts retail-specific spending compared to other world regions. Duty free retail in North America accounts for roughly half of airports' concession revenues, compared to 74% globally. As discussed previously, airports in North America derive a greater share of revenue from car rental and parking in their portfolio of non-aeronautical sources of revenue. Unlike North America, Latin America and the Caribbean more closely approximate the worldwide average, with duty free sales contributing 70% of total airport concession revenue. In particular, duty free retail in Brazil comprises 60% of total concessions revenue, while duty free retail in the Caribbean makes up larger share of total concessions revenue (84%). See **Figure 4-5** through **Figure 4-7** overleaf.

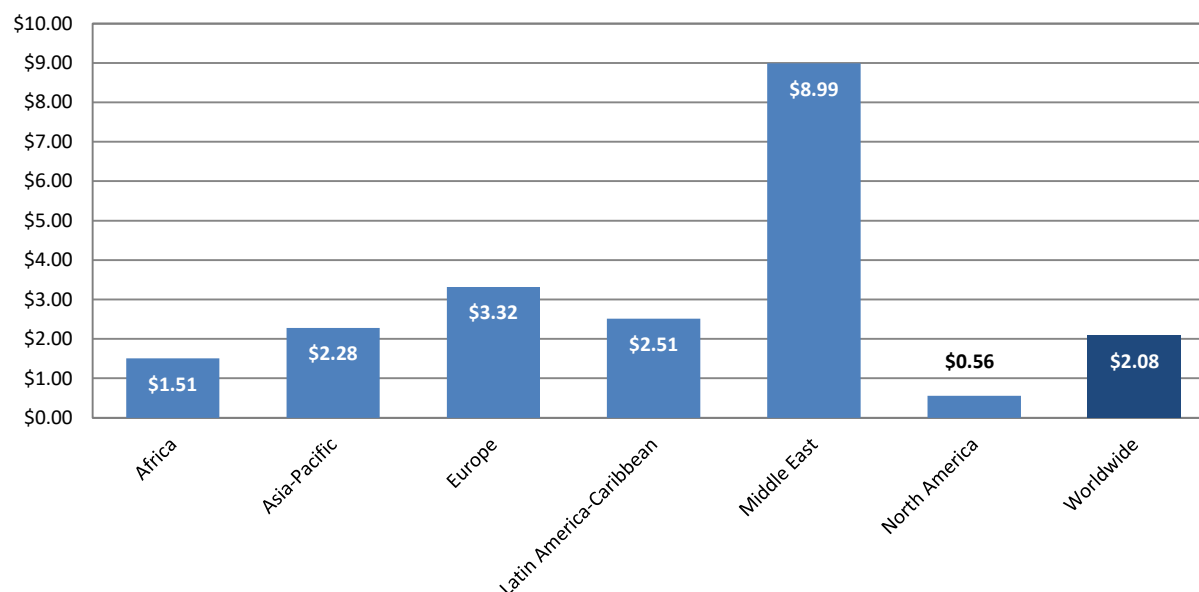
In reviewing the subset data that includes the top 30 international airports in the U.S. and Canada only, 7.1% of total revenues at airports in Canada are related to terminal retail revenue. This compares closely to that of Europe and also globally. For airports in the U.S., in contrast, terminal retail revenues make up only 3.9% of total airport revenues. Refer to **Section 4.1.3** for details.

Figure 4-5:
Terminal Retail Revenue as a Share of Airport Total Revenue, by Region, 2015



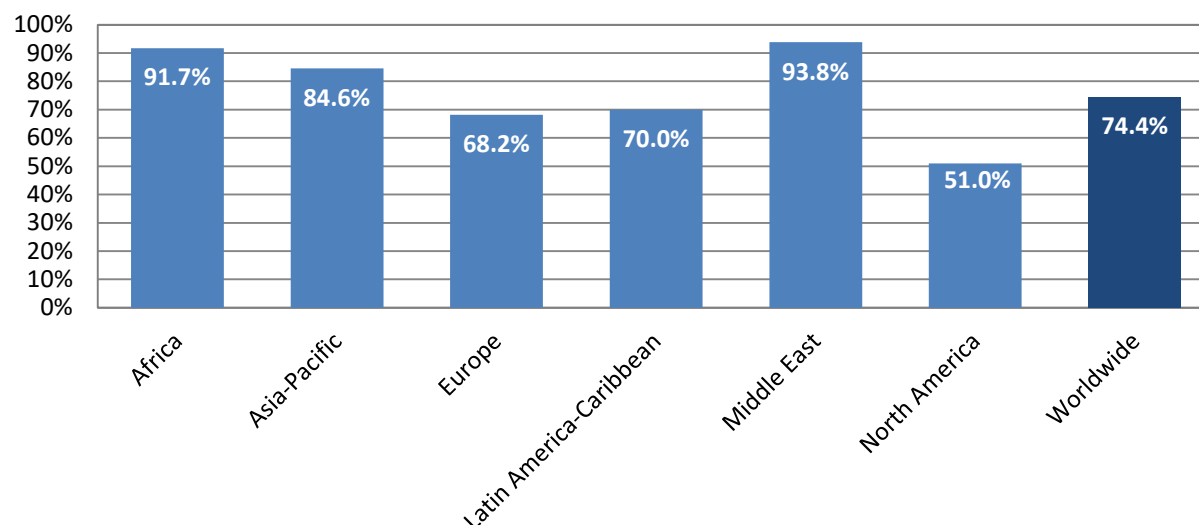
Source: ACI World, Key Performance Indicators 2016

Figure 4-6:
Retail Concessions Revenue per Enplaned/Deplaned Passenger, by Region, 2015



Source: ACI World, Key Performance Indicators 2016

Figure 4-7:
Duty Free Revenue as a Share of Total Concessions Revenue, by Region, 2015



Source: ACI World, Key Performance Indicators 2016

4.1.3 Retail Trends in the Top International Airports – *U.S. and Canada Only*

On an aggregate basis, the opportunity for duty free spending at U.S. airports may be lower in part due to differences in passenger mix relative to other world regions. As previously discussed, U.S. airports are broadly dominated by domestic travel, which constitutes a larger share of the traffic base relative to other regions. This means that while there may be significant opportunity for travel retail spending at U.S. airports given the magnitude of total traffic, duty free spending is limited by the smaller share of international traffic.

To highlight the impacts on duty free retail that is attributable to differences in passenger mix, this section provides a more focused review of only the largest international airports in the U.S. and Canada, by international passenger traffic.²⁴ Some content has been displayed in **Section 4.1.1** and **Section 4.1.2**. This subset of 30 airports, which handle the vast majority of international passenger traffic within North America, can offer some clarity on the impact of duty free and travel retail in airports where it is most relevant.

These airports are stable generators of local economic activity, with non-aeronautical activities supporting much of this impact. In a review of selected economic impact studies conducted on major international airports in the U.S.,²⁵ direct onsite employment at each airport averaged nearly 30,000 jobs. Concessions, including in-terminal food and beverage, as well as retail operations (including duty free

²⁴ The source of data referenced in this section is provided by a customized data run for the Duty Free World Council from ACI-NA that covers 24 airports in the U.S. and 6 airports in Canada. Note that this data set is not directly comparable to the ACI World Key Performance Indicators 2016 database that is a main source of information presented in 4.1.1 and 4.1.2., by world region.

²⁵ Refer to **Appendix C** for a list of the studies reviewed.

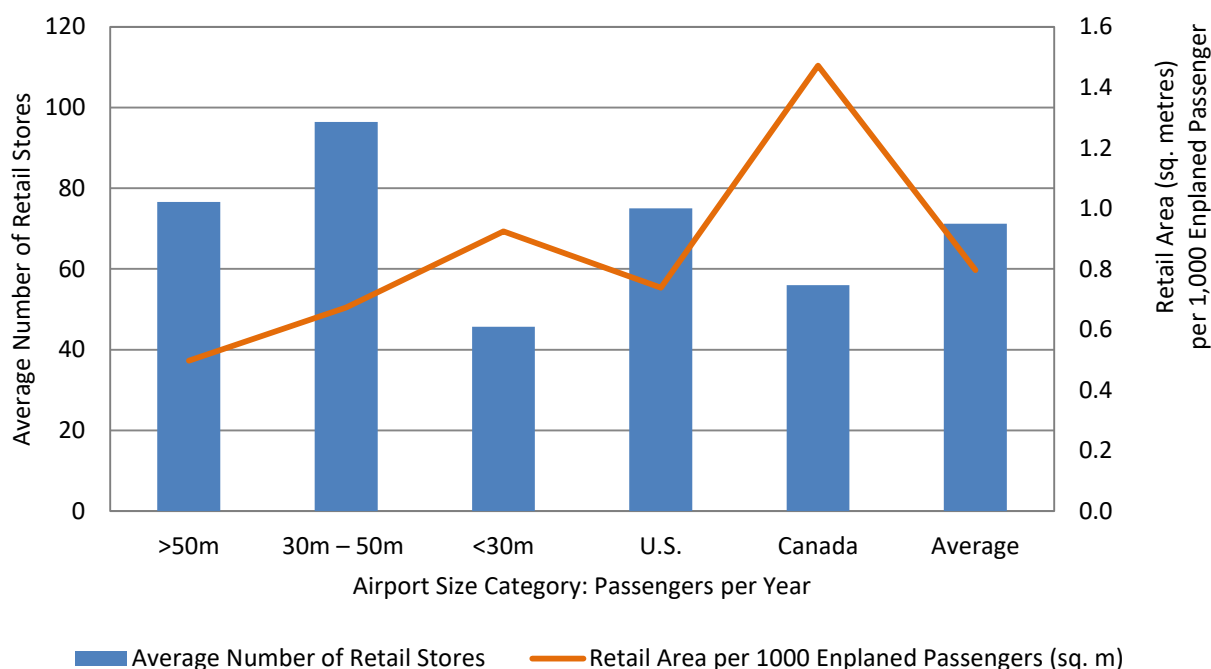
retail operators), can contribute as much as 10% of these jobs, based on a review of several of these individual airport studies. The specific economic impact of duty free and travel retail for all sales channels is discussed later in **Section 7**.

Retail Spending at Airports

All else being equal, the airports with the largest base of passengers (i.e. potential customers), as represented by this subset of North American airports, provide their stores with the greatest opportunity to generate sales. This section summarizes retail spending trends for this subset of 30 airports in the U.S. and Canada.

As previously discussed, duty free and travel retail sales will generally grow as the opportunity for footfall increases. Of course, the average utilization of retail space intensifies as the level of passenger traffic grows, as summarized in **Figure 4-8**. Medium to large airports (i.e. more than 30 million passengers annually) in the U.S. and Canada subset have a larger number of retail shops on average than smaller airports, but with less retail space per passenger. The major international airports in the U.S. offer a larger number of retail shops on average (75) compared to those in Canada (56); however, the Canadian airports allocate more than double the retail space for their relative traffic levels per passenger compared to U.S. airports.

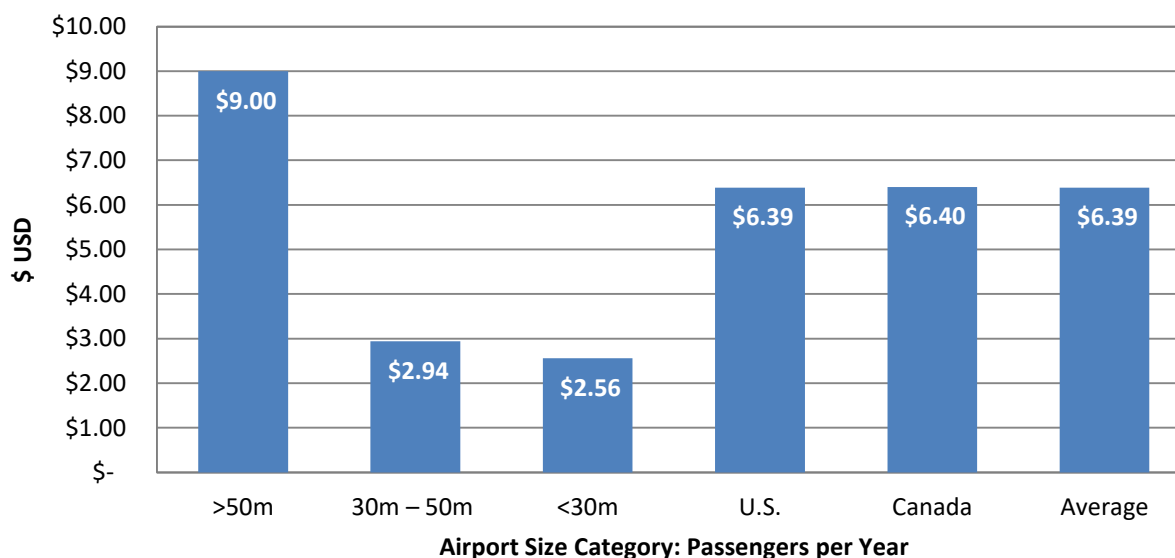
Figure 4-8:
Retail Infrastructure by Airport Size
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

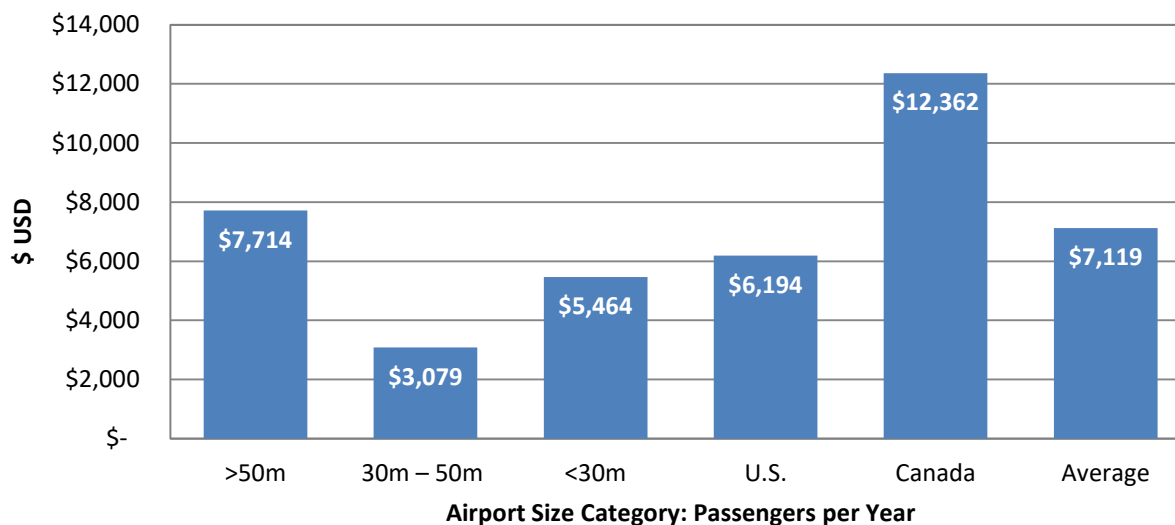
Scale effects are present in average duty-free spend, which is positively correlated with passenger traffic. Most notably, the average gross duty-free sale per departing international passenger is more than three times larger in the largest airports (US\$9) than the medium to small airports (each under US\$3, respectively). As five out of six Canadian airports are categorized in the <30m category, this suggests that the major Canadian airports enjoy a more efficient use of duty-free space than their U.S. counterparts. The Canadian airports in the sub-sample generate double the duty free sales per square meter relative to airports in the <30m category (which include both airports from Canada and the U.S.). See **Figure 4-9** and **Figure 4-10** below.

Figure 4-9: Gross Duty Free Sales per Departing International Passenger
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

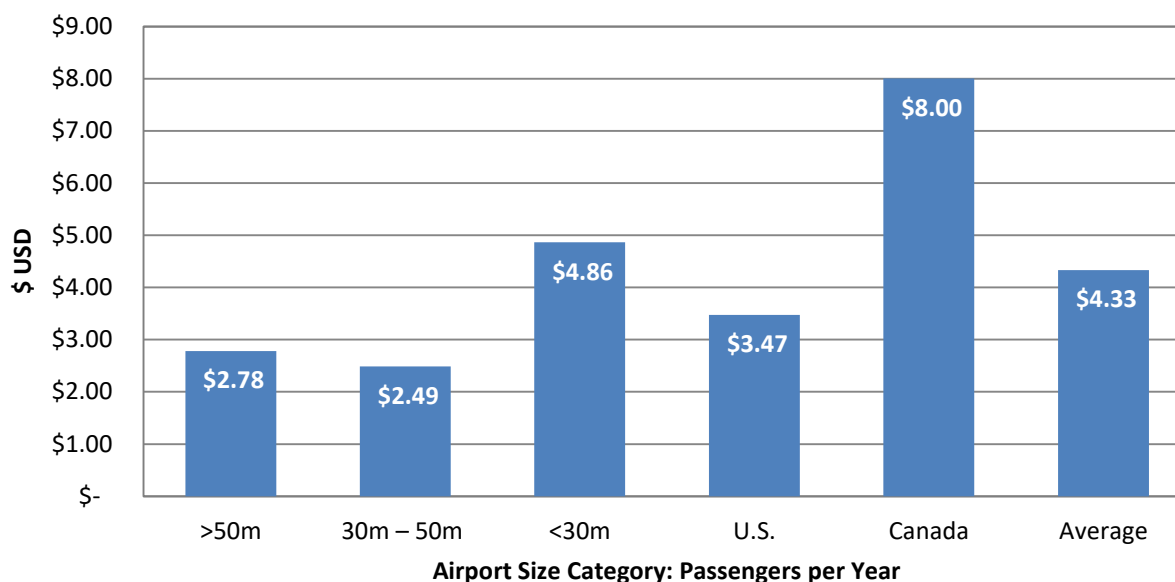
Figure 4-10: Annual Average Gross Duty Free Sales per Square Meter of Duty Free Shop Space Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

In addition to duty free, airports offer a wide variety of other, full-retail shops (i.e., travel retail) that are available to the entire terminal passenger base (i.e. both domestic and international). These non-duty free offerings can include convenience stores, newspaper and book stores, and specialty stores selling fully taxable goods or services. **Figure 4-11** shows the sales per passenger generated by non-duty free stores (refer to **Figure 4-9** for a comparison to per unit duty free sales). For the largest airports (>50m passengers) in the sample, the average non-duty free sale (US\$2.78) is less than one-third of the average duty-free sale (US\$9.00) at the same airports, all of which are located in the U.S. Conversely, the smallest airports generate a higher average spend on non-duty free items, relative to duty-free.

Figure 4-11: Gross Retail Sales (Non-Duty Free) per Departing Passenger (i.e., domestic and international) Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



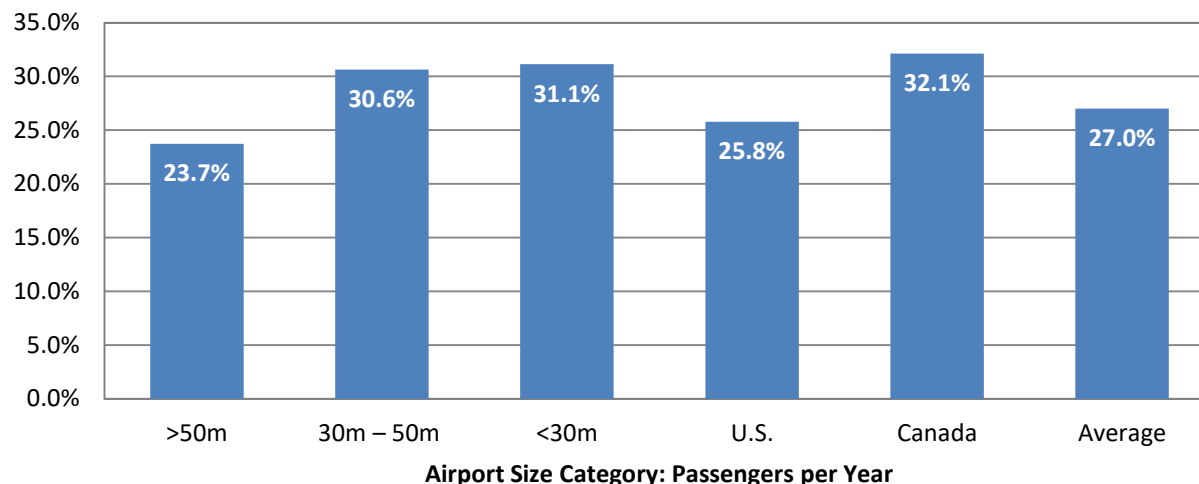
Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

Retail as a Source of Airport Revenue

Only a portion of retail sales at airports contribute toward airport revenues. An airport's share of retail sales revenues can be derived in a variety of ways, through rents or through a percentage of the outlet's sales turnover, coupled with a minimum annual guarantee of income.²⁶ The portion of retail sales attributable to the airport sample is shown in **Figure 4-12**. Airports in the U.S. and Canada are estimated to generate yields of approximately 27% of gross retail sales, with Canadian airports receiving a higher yield from their retail sales relative to U.S. airports. This implies that U.S. airports generate lower retail revenues, not only due to lower average spend rates as previously noted, but also due to lower fees charged by the airports to their retailers through concession agreements.

²⁶ Refer to **Section 4.1.4** for more details.

**Figure 4-12: Total Retail Yield (Duty Free and Duty Paid) to Airports
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016**



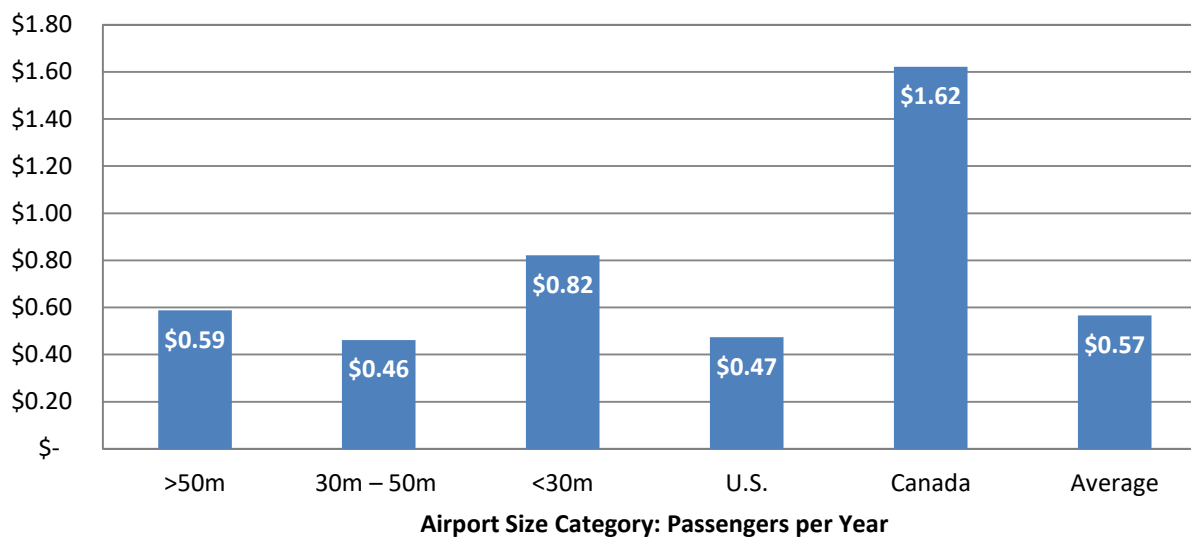
Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

Figure 4-13 breaks down the magnitude of retail revenues for the North American sample. Retail concession revenue per passenger in Canada is approximately US\$1.60, compared to US\$0.47 in the U.S. Although the average retail revenue for the largest international airports in Canada is greater than the broader North American average, it is nonetheless significantly lower than for most other world regions. For example, in Europe, airports average US\$3.32 in retail concession revenue per passenger and Asia-Pacific airports average US\$2.28.²⁷

The major airports in Canada that serve international passengers, with generally lower levels of passenger traffic compared to their U.S. counterparts, also generate higher average duty free specific spend per passenger compared to U.S. airports. Revenue specifically attributable to duty free retail averages US\$0.61 per passenger for the sample of airports in Canada and US\$0.17 per passenger for the U.S. airport sample. See **Figure 4-14**. For duty free revenues specifically, the contribution toward total concession revenue for airports is higher for the Canadian airports (21%) than for U.S. airports (11%).

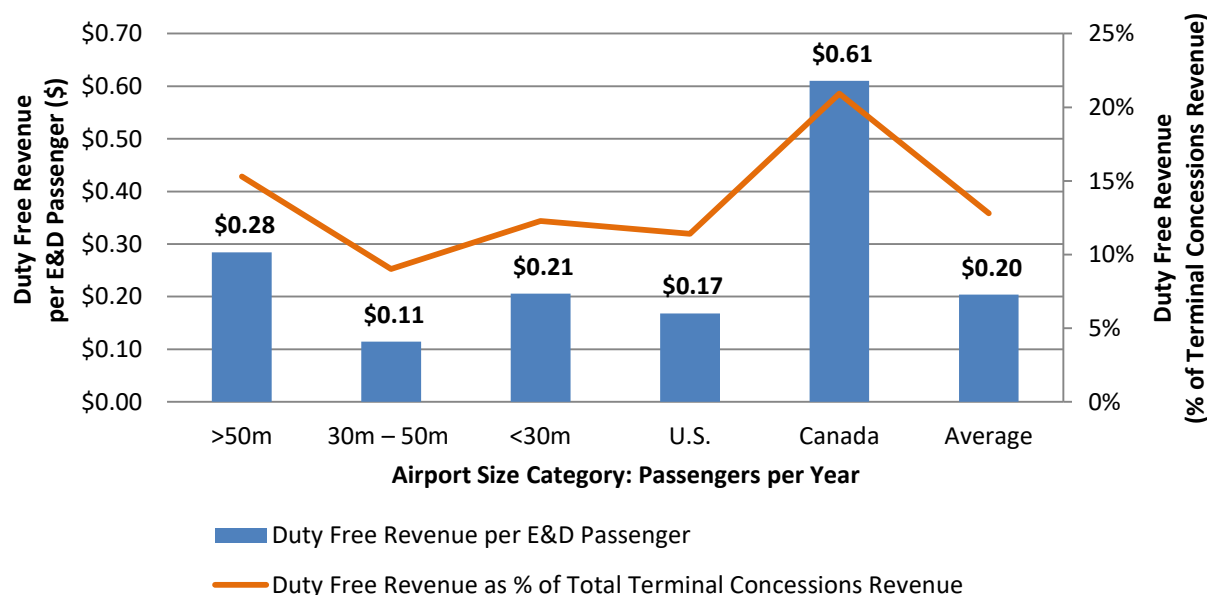
²⁷ Refer to **Section 4.1.2** for regional breakdowns.

Figure 4-13: Total Retail Concessions Revenue per Enplaned/Deplaned Passenger
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

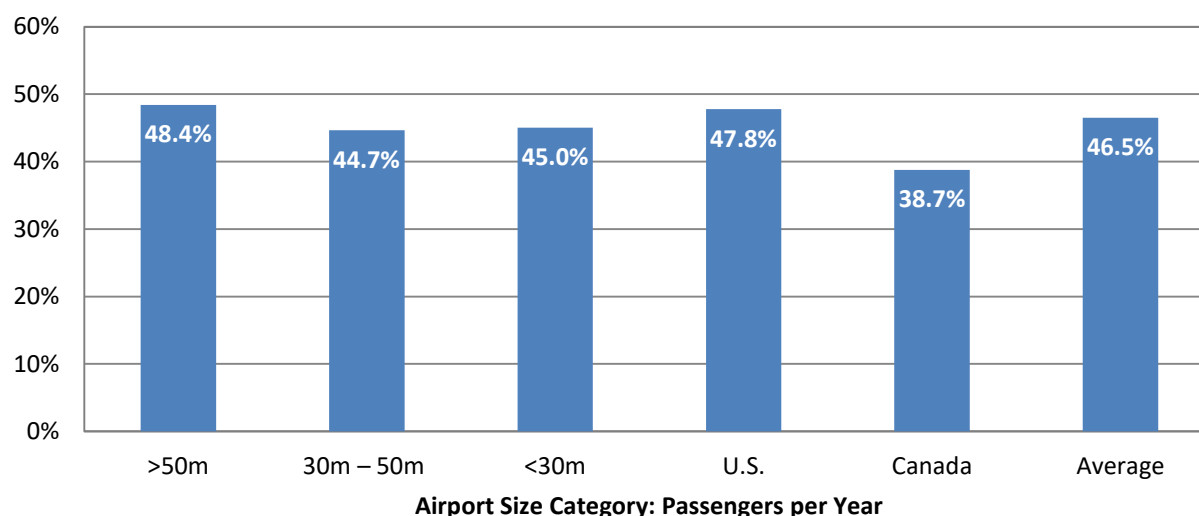
Figure 4-14: Duty Free Revenue per Enplaned/Deplaned Passenger
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

Commercial revenues including terminal retail revenues contribute a significant share of revenue for airports in the U.S. and Canada, as summarized below in **Figure 4-15**. Total commercial or non-aeronautical revenues account for 48% of average airport revenues in the U.S. and 39% in Canada. The share of non-aeronautical revenues, though slightly larger for the largest airports in the sample, is generally consistent across all airport sizes.

Figure 4-15: Non-Aeronautical Revenue as a Share of Total Airport Revenue (%)
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



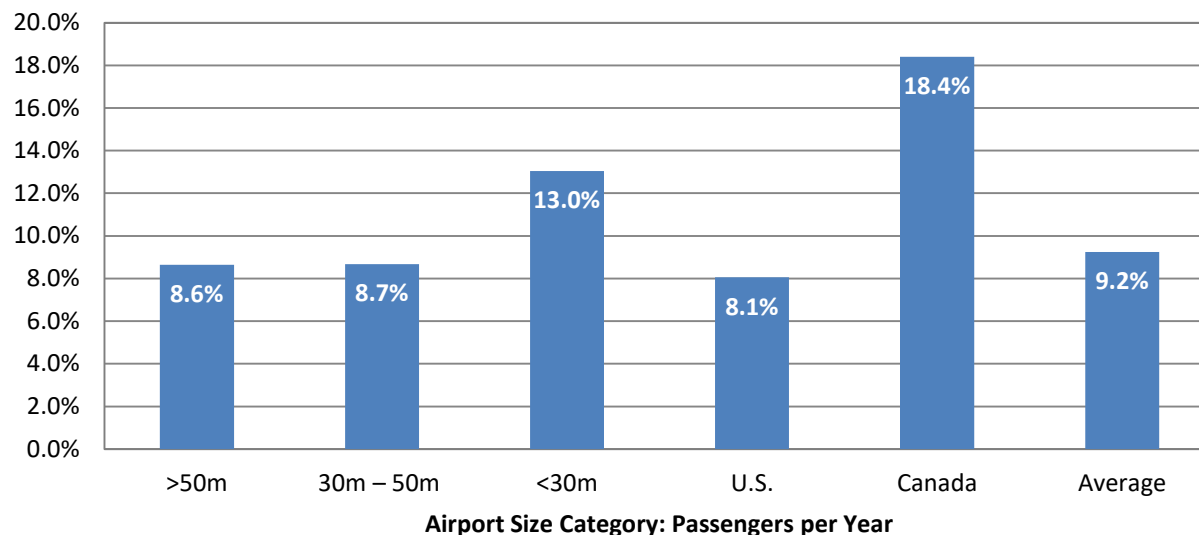
Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

Retail concessions are not typically the largest source of non-aeronautical revenues in North America, unlike other world regions.²⁸ However, retail is still a notable contributor, accounting for 9% of non-aeronautical revenues in the U.S. and Canada on average. As shown in **Figure 4-16**, the lower range of contributions by retail is concentrated within the U.S. Airports in Canada rely on retail operations for approximately 18% of their non-aeronautical revenue. Smaller airports with less than 30 million passengers annually show a similar trend, as they include all Canadian airports in the sample with the exception of Toronto Pearson International Airport that served 44 million enplaned/deplaned passengers in 2016.

Overall, terminal retail revenue (which comprises all duty free and travel retail) accounts for approximately 4% of total airport revenues in the U.S. and 7% in Canada, as summarized in **Figure 4-17**. Smaller airports, which include a larger sample from Canada, trend closer to the Canadian average with total terminal retail accounting for nearly 6% of total revenues at the airport.

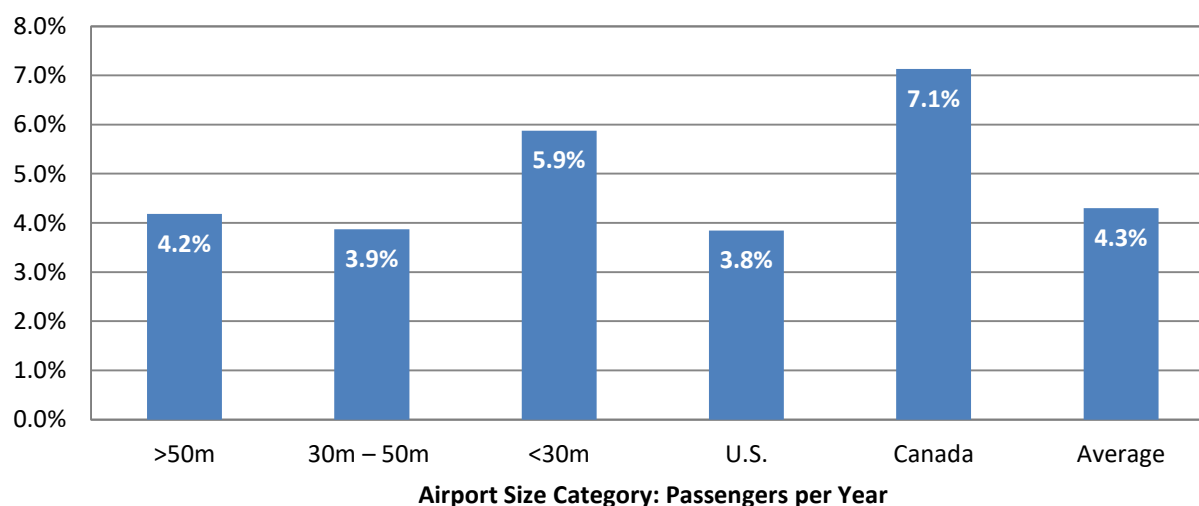
²⁸ Data provided by ACI-NA indicates that onsite parking lots and rental car concessions are by far the largest generators of non-aeronautical revenues in North America (making up 56% of total non-aeronautical revenues), whereas retail concessions tend to dominate in other world regions including Latin America and the Caribbean and Europe. Refer to **Section 4.1.3**.

Figure 4-16: Retail Revenue as a Share of Non-Aeronautical Revenue (%)
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

Figure 4-17: Terminal Retail Revenue as a Share of Total Airport Revenue (%)
Sample of Largest International Airports in U.S. and Canada, By Airport Size, Fiscal 2016



Note: Based on a sample of the top 30 international airports in the U.S. and Canada.
Source: Data provided by ACI-NA to the DFWC for the purpose of conducting this study.

In reviewing the various metrics at airports globally, the data shows that non-aeronautical performance at airports in Latin America and the Caribbean tracks more closely the performance of airports in Europe and Asia Pacific than airports in North America (aggregated data for airports in U.S. and Canada). The results for North America for some metrics show under performance against the global average, with the U.S. airports being a main influencer of the results for North America due to the significant passenger volumes that are handled (with the majority domestic U.S. traffic), in comparison to Canada's six largest international airports. However, in reviewing the data that is available for airports in the U.S. and Canada separately, it is revealed that for several metrics the results for airports in Canada more closely resemble airports in Europe and Asia Pacific. As discussed at the beginning of this chapter, one factor that may help explain the differences between the U.S., Canada and other world regions is that the U.S. has a significant domestic travel market compared to the other world regions, thus impacting its duty free and travel retail performance compared to Canada and the rest of world. Refer to **Figure 4-2** for details.

4.1.4 Differences in Retail Operations at Airport Terminals in the Americas

The prior sections reviewed different metrics related to revenue generation and retail trends at airports globally, at a regional level and at a country level for Canada and the U.S. This section discusses the potential differences in airport retail operations, passenger behaviour and airport governance models that may be influencing airport performance from a retail perspective.

Retail Infrastructure and Passenger Experience at Airport Terminals

The success of any retail venue depends in part on infrastructure, such as the volume of space and its use strategically, as well as particular environmental conditions, such as dwell time and customers' state of mind, which together help drive the overall ability to generate retail footfall.

At airports, greater terminal capacity dedicated to duty free and travel retail allows for more advanced retailing, including better merchandising and more opportunities for brand development, thereby leading to higher value sales. **Figure 4-18** summarizes key indicators of airport retail infrastructure by region. The average number of retail outlets at airports in North America (39) exceeds most other regions²⁹ (perhaps due to the larger overall average terminal space relative to other regions) but with a low allocation of physical retail space relative to the level of passenger traffic. Conversely, airports in Latin America and the Caribbean contain 23 retail outlets on average, but they allocate more than double the amount of physical retail space, relative to passenger volumes, compared to North America. In particular, the average number of retail stores at airports in Brazil is 16, while the average number of retail stores at airports in the Caribbean is 20, with a relatively high allocation of retail area relative to passenger traffic. Some variation in the average number of shops among regions may be driven by differences in airport size.

However, in terms of space provision, the dominance of Asia-Pacific airports is clear, with each airport providing more than 50 retail shops on average with an allocation of physical retail space that is consistent with the worldwide average. This compares to an average of 30 retail stores/shops at airports in Asia-Pacific in 2012. It is worth noting that the average retail area for every 1,000 enplaned passengers is roughly in the same range for Asia-Pacific, Europe, Latin America and Caribbean and the Middle East. Africa has a much higher space allocation and North American airports have a much lower allocation. While the total passenger volumes handled at airports in Asia-Pacific, Europe and North America are

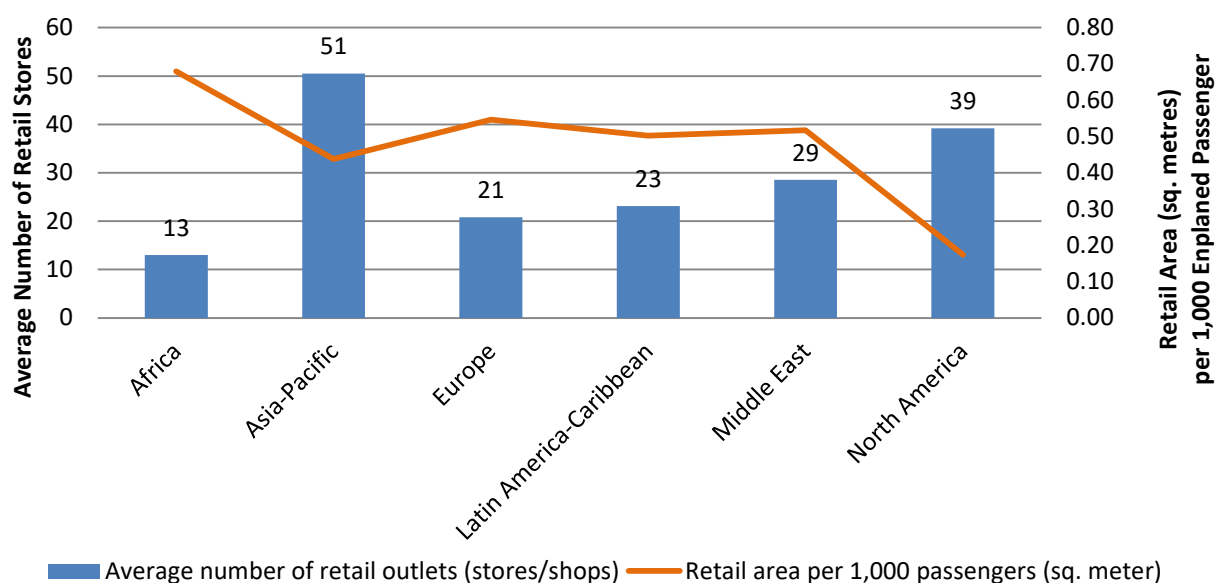
²⁹ Based on large samples (100+) of airports in each region, from ACI World, Key Performance Indicators 2016.

roughly the same, airports in North America allocate much less space to retail operations overall. While there are a large number of stores in operation, each store is allocated a smaller footprint than in airports in other world regions. Note that the dataset includes airports with small traffic volumes, which may allocate little space to retail operations. As shown previously in **Figure 4-8**, in reviewing just the subset of the 30 largest airports in the U.S. and Canada, the average number of retail stores is approximately 70 and the average retail area per 1,000 enplaned passengers is 0.8 square meters, which is a higher space allocation than at airports in Europe and Asia-Pacific.

Focusing on a subset of information that is available for North America, data from ACI-NA on the largest 30 largest airports in Canada and the U.S., shows that the six Canadian airports included in the analysis have on average 56 retail stores, compared to an average of 75 retail stores at the top 24 airports in the U.S.³⁰ That said, the Canadian airports allocate more than double the retail space for their relative traffic levels than the U.S. airports. Refer to **Section 4.1.3** for details.

We further note that, in the short to medium term, airports with limited post-security terminal space may be particularly constrained with respect to managing or expanding the area allocable to duty free retail. Therefore, while an airport may currently make extensive use of its existing retail infrastructure, its opportunities to *grow* its retail offerings (especially duty free) may be physically limited relative to an airport with larger or less utilized post-security space.

Figure 4-18: Terminal Retail Infrastructure, By Region, 2015



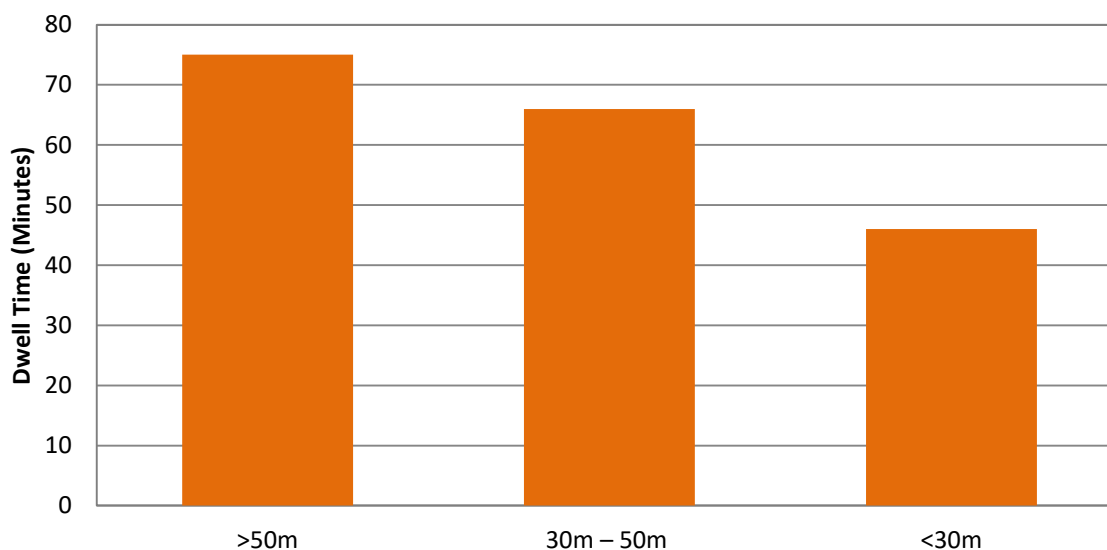
Source: ACI World, Key Performance Indicators 2016.

³⁰ Airports Council International North America (ACI-NA) provided data on a subset of top 30 most busy airports in North America (i.e., the U.S. and Canada only), which includes 24 airports in the U.S. and 6 airports in Canada. This compares to the 2016 ACI World Key Performance Indicators (KPI) database that includes a larger number of airports in the analysis, thus the regional averages for North America are not directly comparable. The larger dataset from the KPI database incorporates the largest international airports in North America (i.e. similar to ACI's subset data) as well as several smaller international (and larger domestic) airports in the sub-region; therefore, the discrepancies in results for North America between the two sources may be driven by the impact from these additional airports.

In addition to the physical availability of retail opportunities, certain environmental and consumer conditions can impact the incidence and magnitude of retail spend. For instance, dwell times, or the length of time that a passenger has to do as he/she wishes after conducting check-in and security procedures, will correlate positively with demand for passenger services (the longer the average dwell time, the higher the demand for terminal space to be allocated for passenger facilities including, but not limited to, retail space). In addition, longer dwell times provide a longer window of opportunity to allow passengers to spend.

Dwell times are generally lower in North America than other world regions. Passengers in the U.S. and Canada report dwell times that ranged from 46 to 75 minutes in 2016, with the longer dwell times occurring at larger airports (see **Figure 4-19**), typically because of the greater mix of international traffic at these airports which requires an earlier check-in time prior to flight departure. The average dwell time for passengers at airports in Canada is 49 minutes. This compares to longer passenger dwell times of over 80 minutes for domestic passengers in Europe, increasing to nearly 140 minutes for passengers travelling internationally to non-European Union destinations.³¹ As mentioned above, research has shown that length of dwell time is a factor in whether a passenger engages in shopping at retail outlets: the longer the dwell time, the greater the opportunity to shop in duty free or travel retail and the greater the propensity to spend.

Figure 4-19:
Average passenger dwell time, U.S. and Canadian Airports, 2016



Source: ACI-NA Concessions Benchmarking Surveys, 2016

³¹ DFWC, "Economic impact of duty free and travel retail in Europe," 2016.

Potential Role of Airport Governance Models in Airport Retail Development

Differences in commercial revenue generation across regions and countries may be influenced by differences in the airport governance structures within which airports operate.

The vision and mission of a government-run airport could vary from that of a not-for-profit airport or a private entity (*many European airports are privately operated*), which could play a role in the level of non-aeronautical revenue development at the airports. Within North America, we note that U.S. airports are public entities managed by municipalities, public authorities or at the state level. Canada's airports were previously operated by the Federal government, but are now for the most part run by private, not-for-profit authorities. In contrast, Latin America includes a combination of airport governance structures that are privately and publicly managed, with an increasing number that are private sector.

For airports that are privately managed, aeronautical fees and charges are generally regulated with increases often related to the rate of inflation or compensating for particular investment projects, in whole or in part. Against this background, privately operated airports are incentivized to grow non-aeronautical revenues which may be less regulated or unregulated. Such revenues create the greatest opportunities for private airport shareholders to make a return on their investment and to provide additional funds for further investment in airport infrastructure. Additional development of retail and other concessions is therefore a key way for airports to generate revenue that can be reinvested back into the airport entity to improve its product offering to passengers and to allow it to stay competitive. Privately held airports strategically plan investments in infrastructure and product offerings to generate shareholder returns while also providing improved service to their customers. Specific development of non-aeronautical revenue streams has been proven to elevate the passenger experience, thus increasing overall satisfaction.

For publicly owned airports, there are similar opportunities to develop non-aeronautical revenues that may be used to fund additional capital projects at airports. However, the incentives may be different especially where public funding for investment, or pass through of its costs to customers, may be available. Airports in the U.S. are publicly managed, and based on the data discussed in prior sections there would appear to be an opportunity to further improve on the development of retail and other concession offerings. Non-aeronautical revenues at U.S. airports currently make up nearly half (47%) of total airport revenues, although a significant source of these revenues is in the form of parking revenues received, and U.S. airports have among the lowest aeronautical charges in the world. This may in part reflect geographical and transport differences but the scale of the difference from Europe, Asia Pacific and Canada, where airport retail concessions make up a larger share of non-aeronautical revenues, and larger non-aeronautical spending per passenger, suggests that there is scope to improve retail provision, thereby improving the in-terminal experience for passengers and their overall satisfaction, while also providing additional funding for investment.

Differences in governance structure can be more nuanced while still profoundly shaping operational and investment decisions. In Canada, the non-profit airport authorities have worked to attract non-aeronautical development and investment at their airports to help push forward capital projects, thus creating an improved passenger experience and a situation where revenues are invested back into the airport, which is part of the mandate of these non-profit entities.

Summary

Airport dwell time for passengers is a key factor in supporting retail development. The longer the dwell time, the greater the opportunity for a passenger to make a duty free or travel retail purchase. Dwell times for passengers in Europe may be more than double that of passengers in the U.S. and Canada. While North American airports average 40 retail stores per airport (second only to Asia Pacific with 50 retail stores, on average), the average physical space allocation is roughly half that of airports in Asia Pacific, Europe, Latin America and the Middle East. So, while there are a large number of stores, there is much less space allocated per 1,000 enplaned passengers, thus impacting the shopping experience for passengers.

As well, differing airport governance structures, and the incentives they embody, may affect the approach to airport retail development with airport managements potentially facing different decisions around how to pay for capital and operational investments depending whether the airport is a public, private or not-for-profit entity.

4.2 The Airline sector

In the airline sector, revenues are segmented between airfares and ancillary fees, the latter of which can be generated from a variety of sources including retail, baggage fees, pay-per-view entertainment, and other offerings that are secondary to the key service being provided – transportation. Airlines have continually expanded their dependence on ancillary services and diversified their revenue streams in order to generate positive operating results.

Duty free and travel retail comprises an important category in a growing list of ancillary offerings by airlines. For some low cost and ultra-low cost carriers,³² the growth in the scope and magnitude of ancillary revenues has become key to their operations, allowing them to offer lower ticket prices and stimulate overall demand for air travel as a result. **Figure 4-20** summarizes the growth in the contribution of ancillary revenue to total revenue for budget carriers in North America, Europe, and Asia Pacific. U.S. carriers Spirit and Allegiant have among the highest growth in their dependence on ancillary revenues, which contribute upwards of 40-50% of their total revenue.

³² Low cost carrier (LCC) is an airline that does not provide all of the traditional services in the fare. This results in lower fares and fewer services for the passenger. LCCs will charge passengers for additional services and products, such as food, priority boarding, seat allocation, and baggage. Ultra low cost carriers (ULCC) are further differentiated from LCCs and will have even less inclusions in the base fare, with a greater number of potential service and product add-ons for which passengers must pay in addition to the base fare.

Figure 4-20: Ancillary Revenue as a Share of Total Revenue, 2016

Airline	Nationality	Ancillary revenue as % of total revenue		Change
		2016	2011	
Spirit	US	46.4%	33.2%	+13.2 points
Frontier	US	42.4%	7.7%	+34.7 points
Allegiant	US	40.0%	27.0%	+13.0 points
Wizz Air	Hungary	39.4%	27.9%	+11.5 points
Ryanair	Ireland	26.8%	20.5%	+6.3 points
Jet2.com	UK	26.0%	27.1%	-1.1 points
Volaris	Mexico	24.3%	9.5%	+15.3 points
Hong Kong Express	Hong Kong	24.0%	n/a	n/a
Jetstar	Australia	22.0%	15.3%	+6.7 points
Pegasus	Turkey	22.0%	10.1%	+11.9 points

Source: IdeaWorksCompany.

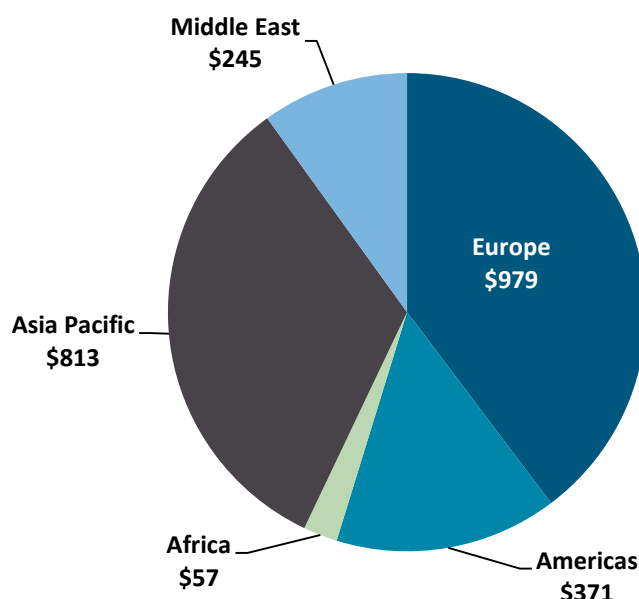
Although ancillary revenues as a whole have formed a growing revenue stream for airlines, the contribution from duty free and travel retail is in decline. Most notably, airline retail sales from the Americas are affected by the fact that the major U.S. carriers have opted to discontinue their inflight retail services over the past three years. In contrast, onboard retail can still represent a notable portion of ancillary revenues for airlines in other regions, at around 10% for the average non-American low cost carrier.

Further, when compared to airport duty free and travel retail, the duty free and travel retail sales generated by airlines are substantially smaller, both in magnitude and relative to the financial performance of the respective recipient (i.e. airlines).³³ This is understandable given added constraints related specifically to on-board retail, in particular space and weight, which appear to outweigh any added benefits such as longer flight times.

As shown in **Figure 4-21**, the regional comparison for airline duty free and travel retail sales follows similar trends, albeit in smaller amounts, to the airport sector. The regions with the largest proportion of airport retail sales also generate the highest magnitude of inflight retail sales. Europe is the single largest market with nearly US\$980 million in airline duty free and travel retail sales in 2016 (40% of market total), followed by Asia Pacific and the Middle East which together account for 43% of the global market. The Americas airline sector generated US\$371 million in duty free and travel retail sales in 2016. This is quite small in comparison to the duty free and travel retail sales generated by airports and other transport channels. Airline-generated sales were equivalent to approximately 9% of airport-generated sales in 2016.

³³ Refer to **Section 2** for a comparison of retail sales across sales channels.

Figure 4-21: Airline Duty Free and Travel Retail Sales by Region (US\$ millions), 2016



Source: Generation Research.

4.3 Aviation Sales Channel Summary

The aviation sales channel for duty free and travel retail is estimated to make up nearly half of the total duty free and travel retail revenues in the Americas. Airports provide an excellent opportunity to attract customers who have time to spend in post-security areas while waiting for their flights to depart. As displayed in the prior sections, there is a rich set data, sourced from ACI that allows for cross-comparisons of retail revenues at the country and regional level. It is apparent from the analysis that U.S. airports perform quite differently than airports in Canada and Latin America and the Caribbean. Airports in the latter seem to mirror more closely the activities of airports in Europe and Asia.

In addition to duty free and travel retail sales at airports, some airlines also contribute to aviation channel sales through on-board offerings to passengers. However, it is noted that the volume of sales via the airlines is much smaller than at airport. As well, while airline ancillary revenues as a whole have formed a growing revenue stream for airlines, the contribution from duty free and travel retail is in decline. Most notably, airline retail sales from the Americas are affected by the fact that the major U.S. carriers have opted to discontinue their inflight retail services over the past three years.

5 **Maritime Sales Channel:** Duty free and travel retail in the Americas on cruises and ferries

Key Figures

- Total estimated duty free and travel retail sales in the maritime sales channel is \$3.4 billion.
 - Total direct jobs associated with this sales channel is 14,900.
 - Total direct GDP associated with this sales channel is US\$2.2 billion.
- **More than 50%** of surveyed cruise passengers consider on-board duty free retail to be “**very important**” to their cruise experience.
- **88%** of cruise passengers who browse duty free shops also end up making a duty free purchase either on-board or on-land.
- In the Americas, duty free and travel retail sales on ferries amounted to **US\$34 million** in 2016.

5.1 Overview

The cruise sector is among the largest and fastest growing contributors to the global tourism industry, generating roughly US\$35-40 billion in net revenues annually. In terms of passenger traffic, the North American and Caribbean regions together comprise the largest market for cruise travel in the world. North America was the source region for around 14 million (57%) of the nearly 25 million total cruise passengers in 2016.³⁴ In terms of capacity, cruises in the Americas account for over 40% of global cruise capacity, as shown in **Figure 5-1**.³⁵ Specifically, the Caribbean was by far the top cruise destination in the world in 2016, contributing 35% of global ocean cruise capacity. The market is served by a large source of suppliers, with roughly 65 cruise liners deployed within the North American and Caribbean cruise region, though passenger traffic and cruise revenues are predominantly concentrated in a handful of companies.³⁶

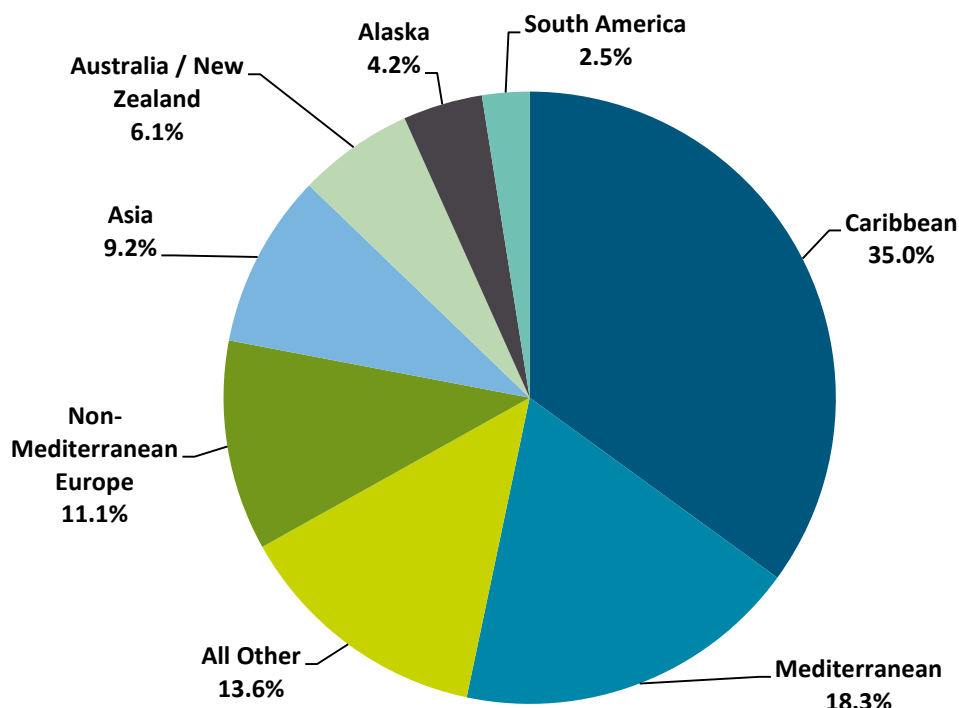
³⁴ Cruise Lines International Association (CLIA) indicates that the majority of passengers sourced from North America are embarking on cruises throughout the Americas.

³⁵ Cruise Market Watch (<http://www.cruisemarketwatch.com/growth/>). Cruise capacity based on 2016 data from Cruise Lines International Association's 2016 Year in Review (<https://www.cruising.org/about-the-industry/research>).

³⁶ CiR, *North American & Caribbean Cruise Duty Free Retail Study 2015*.

Duty free and travel retail is well-integrated within the cruise industry in the Americas, and forms a substantial part of the cruising experience. Duty free retail can be made available through two main channels during cruise travel, either on-board the ship itself and on-land at the port stops. The variety of duty free shopping available both on-board and at ports of call, coupled with cruise passengers' high purchasing rates, means that duty free retail can have a positive impact for operators, as well as the local economies served by the cruise route network. The significance of duty free retail extends beyond the economic effects directly derived from onboard and onshore sales, and includes wider economic benefits in the cruise and tourism industry, such as encouraging greater tourism via cruise travel by passengers who value the opportunity to shop duty free. This is particularly important for tourism-dependent economies, particularly in the Caribbean.

Figure 5-1:
Share of Ocean Cruise Capacity, by Key Region
Worldwide, 2016

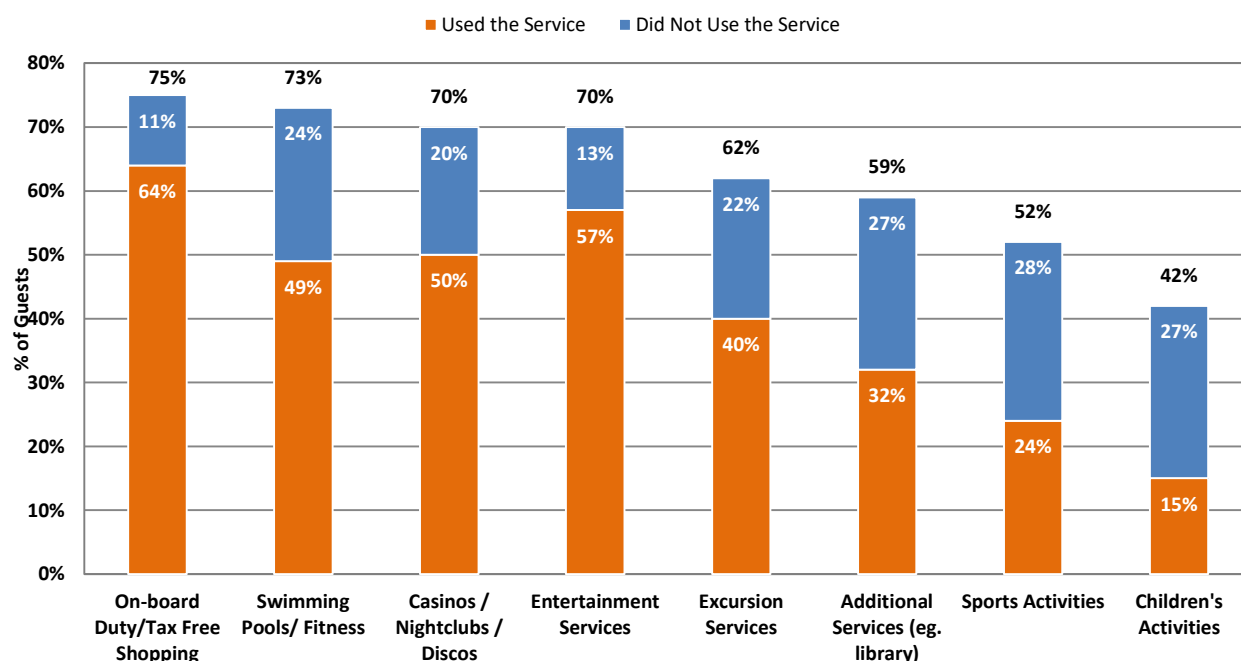


Source: Cruise Lines International Association (CLIA), 2016.

5.2 Duty Free Shopping Behaviour on Cruises

As previously mentioned, duty free retail can be offered on-board the cruise ship as well as in duty free shops available onshore at ports of call. In the Americas, on-board duty free retail represents a key part of the cruise vacation for passengers. Based on a 2015 passenger survey from Counter Intelligence Retail Ltd. (CiR), on-board duty free shopping is highly valued by passengers on cruises in the U.S., Canada and the Caribbean. Over half of surveyed passengers consider on-board duty free retail to be “very important” to their cruise experience.³⁷ This consumer perception is further evidenced by the high conversion rates for duty free shopping on cruises, as summarized in **Figure 5-2**. Approximately 85% of passengers who recall seeing on-board duty free retail opportunities (or 64% of all surveyed passengers) also visited an on-board duty free shop. Such shopping represents the most popular of on-board activities and services.

Figure 5-2:
Proportion of Cruise Passengers Who Recall On-Board Services
U.S., Canada and Caribbean, 2015

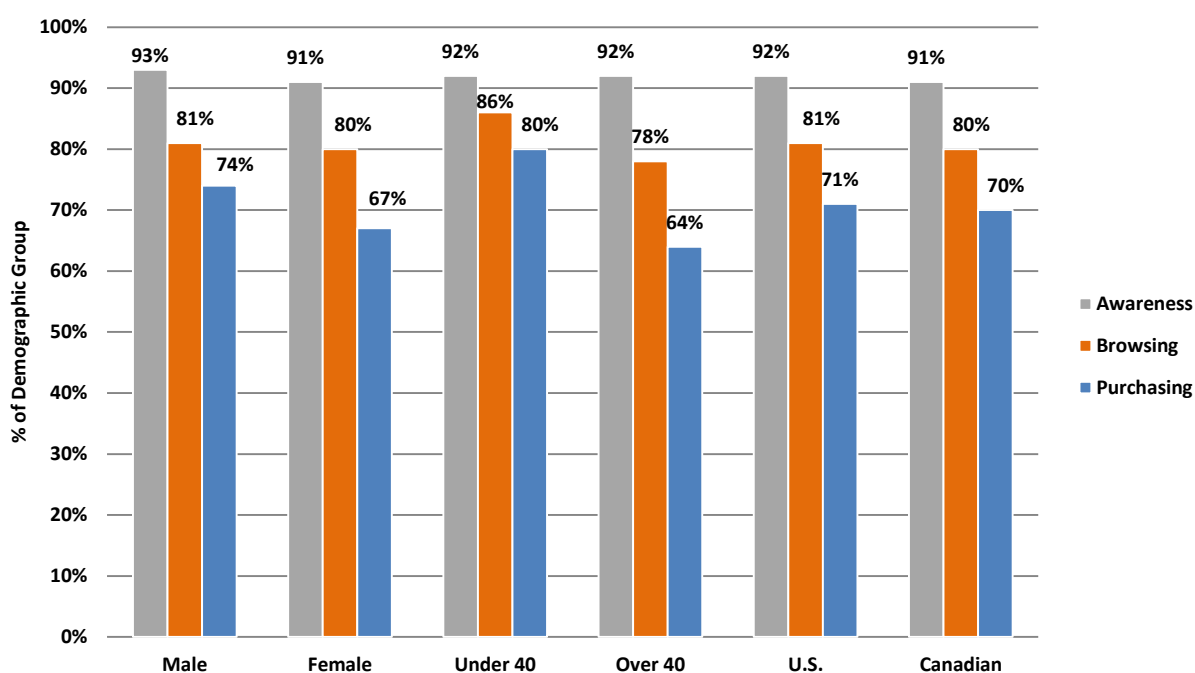


Note: Not all cruise liners in the region will offer all the services in the chart.
Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

³⁷ CiR, *North American & Caribbean Cruise Duty Free Retail Study 2015*.

Figure 5-3 provides a further breakdown of shopping behaviour, by demographic group, for both on-board and on-land duty free retail. Duty free shopping awareness, browsing, and purchasing levels are reasonably consistent across gender, age, and key nationalities (American and Canadian), each of which are in turn characterized by high purchase conversion rates. The propensity to make a duty free purchase is relatively higher among men and travelers under 40.

Figure 5-3:
Incidence of Duty Free Purchases by Cruise Passengers, by Demography
U.S., Canada and Caribbean, 2015



Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

Overall, purchase conversion is high among cruisers, as 88% of those who browse duty free shops also end up making a duty free purchase either on-board or on-land.³⁸ On-board purchasing is preferred over on-land purchasing (53% of passengers purchased on-board versus 36% on-land), and this preference is consistent across all demographic groups.³⁹

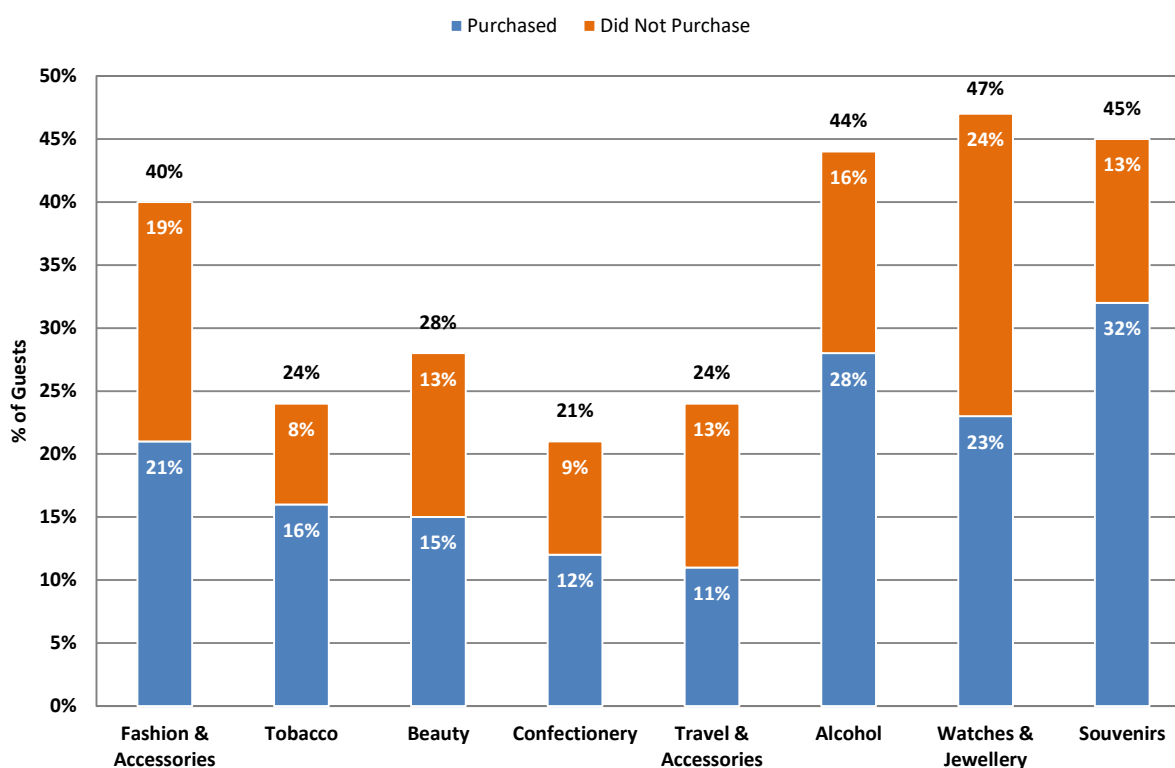
Purchase behaviour and motivation for key product categories are described in **Figure 5-4** and **Figure 5-5**. For instance, 45% of cruisers browsed for souvenirs at a duty free store, while 32% actually purchased

³⁸ Ibid.

³⁹ Ibid.

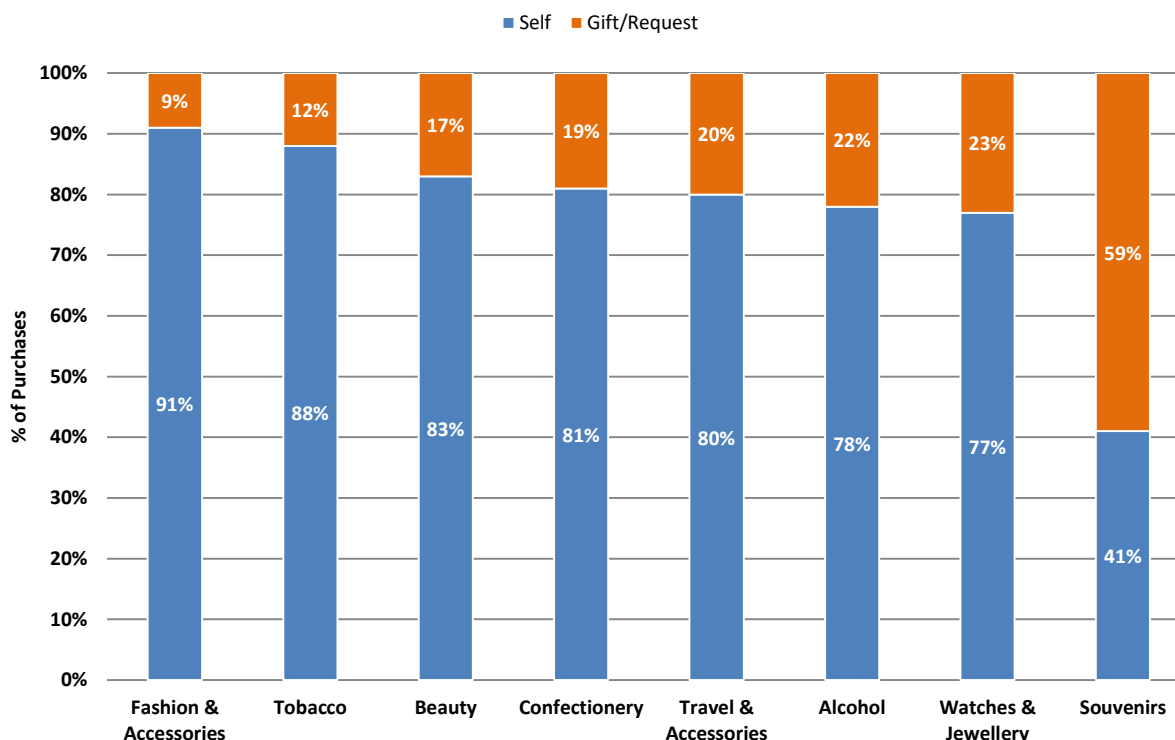
a duty free souvenir, making for the highest purchase conversion rate out of all product categories. Other product categories, namely jewelry and fashion items, encourage similarly high browsing rates from cruisers, but do not result in the same magnitude of duty free purchases. Shoppers who mainly purchase souvenirs tend to use them as gifts for others, whereas the primary motivation for other purchases is personal use.

Figure 5-4:
Duty Free Browsing by Cruise Passengers, by Key Product Category
U.S., Canada and Caribbean, 2015



Note: Chart pertains to combined on-board and on-land duty free shopping.
Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

Figure 5-5:
Reason for Duty Free Purchasing by Cruise Passengers, by Product Category
U.S., Canada and Caribbean, 2015



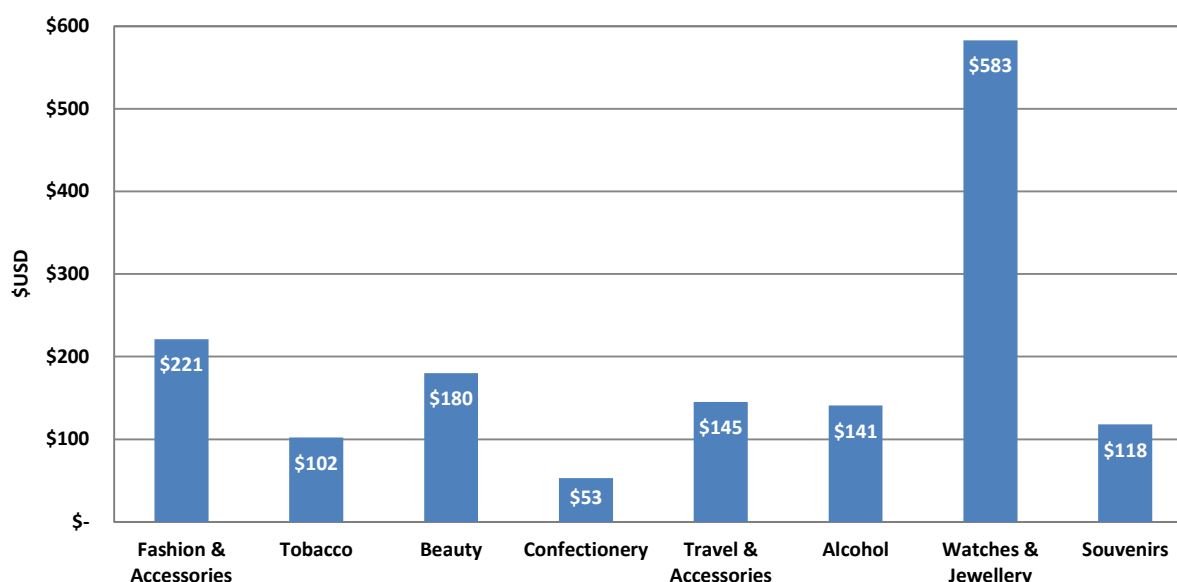
Note: Chart pertains to on-board duty free purchases only, though proportions are broadly similar to on-land results.
Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

5.3 Duty Free Retail Spending on Cruises

The magnitude of duty free shopping opportunities available on cruise vacations, paired with a passenger base that is motivated to shop, has made the cruise industry a notable source for duty free spending.

Figure 5-6 shows the average amount spent by purchasers on duty free items on-board. With the exception of confectionery goods, purchasers spent an average of over US\$100 on duty free items within the categories, with watches/jewelry and fashion items resulting in even higher levels of average spending. Passengers may be subject to export/import restrictions on certain goods such as tobacco and alcohol, and may therefore spend less on those items.

Figure 5-6:
Average Duty Free Spend by Cruisers, by Product Category
U.S., Canada and Caribbean, 2015



Note: Figures represent the average total duty free spend, both on board and on-land. This includes duty free sales at or in the vicinity of cruise ports at the start of the passenger's trip, at a location port during the trip, or at a port at the end of the trip.
Source: North American & Caribbean Cruise Duty Free Retail Study 2015, CiR.

Cruises in the Americas are often part (if not the entirety) of a vacation experience, and so they are generally used for leisure travel rather than strictly as a means of transportation. As a result, passengers exhibit a general willingness to spend on gifts, souvenirs and other items that can be sold duty free. CiR notes that duty free spend by cruise travelers is consistently high across the worldwide cruise industry, and tends to outpace other sectors, such as airports, because cruisers are exposed far more frequently to duty free opportunities throughout the duration of their trip and are likely to make multiple purchases.⁴⁰

Cruisers' inclination to spend money during their vacation means that duty free and travel retail can be a notable source of revenue generation for cruise lines.

Figure 5-7 provides a breakdown of revenue generated by cruise lines from the average passenger, based on worldwide cruise data. Onboard spending per passenger accounts for over one quarter of cruise revenue, indicating that cruise lines are able to generate a significant portion of income on additional services beyond the price of the cruise ticket itself. Retail is included in other onboard spending that constitutes around 4% of total cruise revenue on average worldwide, though it is noted that average duty free spending on North America and Caribbean cruises may be higher than the worldwide average shown below (based on CiR survey data, refer to **Figure 5-6**. Note however that this relates to combined onboard and onshore spend).

⁴⁰ Ibid.

Figure 5-7: Average Breakdown of Spending per Cruiser Worldwide, All Cruise Lines

Revenue Stream	Amount (US\$)
Cruise Ticket	\$1,293
Onboard Spending	\$498
- Casino & Bar	\$274
- Shore Excursion (cruise line portion)	\$100
- Spa	\$50
- All Other Onboard Spending (incl. retail)	\$75
Total Spending	\$1,791

Source: Estimates made by Cruise Market Watch, based on financial information from top cruise lines.

Similar to the aviation industry, cruise lines require substantial capital investment in order to build a cruise fleet, especially those providing ocean service, with the largest ships capable of carrying thousands of passengers while also supplying a broad array of onboard activities for a week or more (as is the case for Caribbean and Alaskan cruises). Research from the Florida-Caribbean Cruise Association (FCCA) and Jean-Paul Rodrigue's *The Geography of Transport Systems* indicates that the cruise industry operates as a supply-driven industry – that is, most cruises worldwide operate at or near full capacity, limited only by the available space offered by the current operating fleet.^{41,42} This notion is reinforced by continued growth in the worldwide capacity as well as ship orders over the past decade.⁴³

Furthermore, as cruise operators continue to expand their fleets, they face added opportunities to invest in enhancing the capabilities of each new ship. The development of the quintessential, all-inclusive onboard cruise experience in key markets, like the Caribbean and Alaska, has depended upon technological advances that allow ships to be equipped with a larger amount and variety of amenities.

Altogether, these factors mean that cruise operators depend on each source of revenue, including onboard duty free retail, to not only secure a positive operating result but to invest in additional, “bigger and better” ships that can further grow the market. This in turn increases the magnitude of tourist travel to cruise destinations.

⁴¹ The FCCA notes that demand continues to outpace supply in the cruise industry, with annual occupancy percentage consistently exceeding 100 percent. FCCA, *Cruise Industry Overview – 2017* (<http://www.f-cca.com/downloads/2017-Cruise-Industry-Overview-Cruise-Line-Statistics.pdf>)

⁴² Rodrigue argues that, unlike other segments of the tourism industry, the cruise industry is uniquely characterized by a “supply push strategy” whereby operators build the ships and then find the customers to fill them through various marketing and discounting strategies (in effect, cruises are less susceptible to price elasticity and other demand drivers than other tourism sectors, so traffic growth and market development rests more heavily on supply-side factors). Cruise lines are thus challenged to create unique and competitive cruise packages which involve “a high-quality stay on-board” accompanied with a broad variety of activities, services, and conveniences. From this perspective, the proper provision of such activities and services, including duty free shopping, constitutes an important if not essential part of the overall cruise product. Jean-Paul Rodrigue, *The Geography of Transport Systems*, 2017. (https://transportgeography.org/?page_id=7055)

⁴³ Cruise Industry News, *2017-2018 State of the Industry Annual Report*.

In effect, the economic impact of duty free and travel retail, both on cruise operators and the port countries, spans across several subtle though important streams from both the demand and supply side of the industry (i.e. duty free offerings attract cruise customers as an appealing amenity while also indirectly enabling cruise operators to serve more passengers).

5.4 Duty Free Retail on Ferries

In the Americas, duty free and travel retail sales on ferries amounted to US\$34 million in 2016.⁴⁴

International travel by ferry is less prevalent (and can be less cost-effective) in the Americas relative to other regions, such as Europe, with the bulk of cross-border service offered among the island nations of the Caribbean and in South America. Based on route listings from ferrylines.com,⁴⁵ within the Caribbean and South America, there are numerous routes between and among Caribbean and Central American locations as well as select countries in South America (namely, Argentina, Uruguay and Chile), many of which are served by several different ferry operators. There are only a handful of ferry operators serving roughly a dozen routes between the U.S. and Canada, as well as daily ferry services between Florida and Caribbean countries.⁴⁶

International ferry travel is more prevalent in the Latin America and Caribbean sub-region given the greater geographic opportunity relative to the U.S. and Canada (i.e. a higher number of countries as well as a higher number of border crossings that can be feasibly serviced by ferry, including close-proximity island nations). For certain routes, ferry travel may also be a relatively more direct or affordable mode of transit than travel by air or land. For instance, sample fares for commuter ferries on select routes between Argentina and Uruguay range from US\$75 to US\$95 roundtrip, relative to US\$250 and above on comparable flights.⁴⁷

Ferries throughout the Americas serve commuters as well as tourists and other leisure travelers, and those with a sufficiently large and regular service may offer onboard entertainment and services while at sea, including gambling and duty free retail.

Figure 5-8 provides some insight into on-board duty free spending habits, with a comparison of two major ferry operators on routes between Buenos Aires, Argentina and Uruguay. Passengers on these routes, which range in duration between one and three hours, show a preference for purchasing duty free perfume and cosmetics, as well as food and beverage items while onboard. Other duty free items are offered onboard, including toys and electronics, but these make up a minority of duty free sales generated by these ferries.

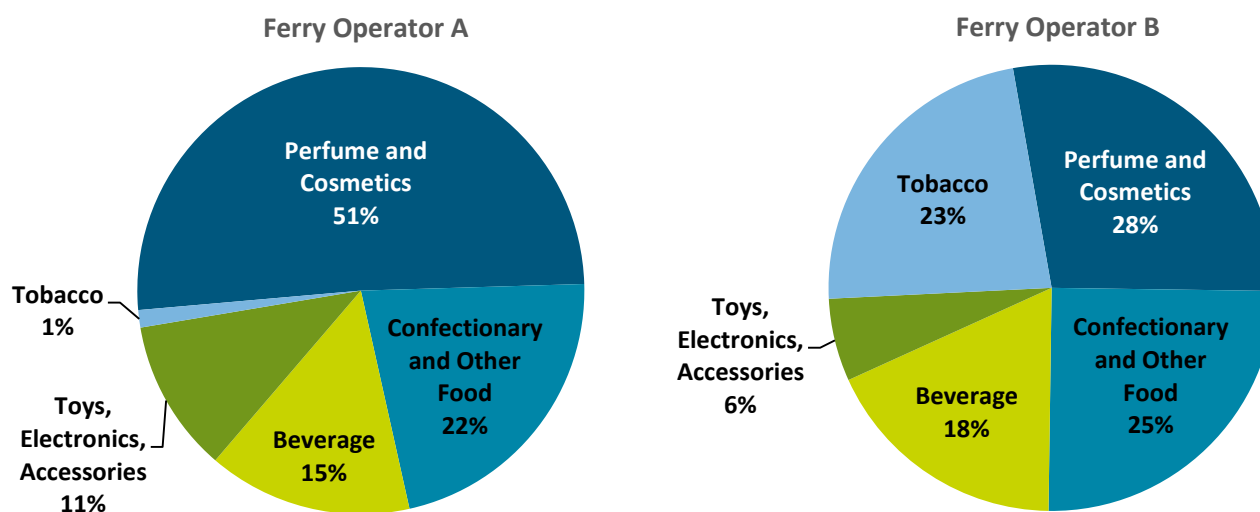
⁴⁴ Generation Research.

⁴⁵ www.ferrylines.com is a comprehensive ferry portal.

⁴⁶ Not all routes may have duty free shopping available onboard or at port.

⁴⁷ Estimates only, based on comparable routes for bookings three months' in advance of the search date. Sources include ferrylines.com and Google Flights.

**Figure 5-8: Proportion of Duty Free Sales during Ferry Travel, by Product Category
Select Routes between Argentina and Uruguay**



Source: Information collected by Asutil, on behalf of InterVISTAS Consulting.

5.5 Maritime Sales Channel Summary

The cruise sector is among the largest and fastest growing contributors to the global tourism industry, generating roughly US\$35-40 billion in net revenues annually. In terms of passenger traffic, the North American and Caribbean regions together comprise the largest market for cruise travel in the world. North America was the source region for around 14 million (57%) of the nearly 25 million total cruise passengers in 2016.⁴⁸

Total estimated duty free and travel retail sales in the maritime sales channel is \$3.4 billion, of which duty free and travel retail sales on ferries amounted to US\$34 million in 2016. More than 50% of surveyed cruise passengers consider on-board duty free retail to be “very important” to their cruise experience. The vast majority (88%) of cruise passengers who browse duty free shops also end up making a duty free purchase either on-board or on-land.

⁴⁸ Cruise Lines International Association (CLIA) indicates that the majority of passengers sourced from North America are embarking on cruises throughout the Americas.

6 *Land Sales Channel:* Duty free and travel retail at land borders in the Americas

Key Figures

- Total estimated duty free and travel retail sales in the land sales channel is \$2.8 billion.
 - Total direct jobs associated with this sales channel is 15,800.
 - Total direct GDP associated with this sales channel is US\$1.7 billion.
- Alcohol shows the highest purchase conversion rates (**51%**) at U.S. land border duty free stores.
- At Canadian land borders, alcohol accounts for about **50%** of all duty free sales, followed by tobacco (**22%**) and beauty products (**14%**).
- Duty free spending along the Brazilian-Uruguayan border in 2016 is estimated at approximately **US\$109 million**.

6.1 Overview

Land border travel typically involves transportation by private or commercial vehicle, as well as foot traffic. Prior to undergoing screening by customs and border security, eligible travelers can often stop at duty free shops situated at or close to the crossing itself.⁴⁹

Similar to the cruise industry, land border crossings are a staple for duty free and travel retail in the Americas. Duty free retail spend at land borders in the Americas is stimulated by high levels of travel frequency, as well as high-tax regimes that incentivize residents to cross the border and buy duty free when possible. Travel by car or bus is often more affordable than other forms of transport in the Americas, and therefore, attracts a larger number of potential shoppers.

For U.S. residents, Mexico and Canada are the top two choices for international travel out of all international destinations worldwide. The majority of these American travelers arrive via land transportation. In 2016, outbound travel by U.S. residents to Mexico, by land border, totaled over 22 million (+7% from 2015) while over 9 million travelled by land border to Canada (+6% from 2015).⁵⁰ In comparison to the 9 million Americans arriving in Canada by land, only 0.4 million of overseas (non-

⁴⁹ In addition to border crossings, there are duty free shops situated in downtown city centres and diplomatic stores. Diplomatic stores are not included in this study.

⁵⁰ Source: U.S. Department of Commerce, International Trade Administration, National Travel and Tourism Office (NTTO).

American) visitors to Canada arrived by land.⁵¹ Over 100 border crossings serve traffic between Canada and the U.S. (though there are less than 30 customs offices located on each side of the border)⁵², while there are nearly 50 crossings between Mexico and the U.S.

In 2016, there were over 19 million Canadian visitors (staying one or more nights) to the U.S., of which 11 million travelled by auto and nearly 8 million travelled by air. The remaining visitors travelled by bus and other modes (e.g., train, ferry).⁵³

In 2016, there were an estimated 19 million Mexican visitors to the U.S., of which 2.6 million were by air.⁵⁴ There are 48 border crossings between the U.S and Mexico, with 330 ports of entry.

These land travelers can avail themselves of duty free shopping. In a 2017 survey by CiR, 85% of shoppers in U.S. duty free stores on the U.S.-Mexico or U.S.-Canada border, went on to make a purchase. The following sections summarize duty free shopping habits and average spend rates at land borders, based primarily on survey findings at the U.S. – Mexico/Canada borders.

6.2 Duty Free Shopping Behaviour at Land Borders

CiR's 2017 survey of shoppers at U.S. land border duty free stores reveals the purchasing habits of visitors to the U.S. **Figure 6-1** shows purchase conversion rates by shoppers at duty free shops near the U.S. borders. The majority of shoppers (70%) browse for duty free alcohol, while 51% of shoppers ended up actually buying duty free alcohol. Purchase conversion rates are notably lower for products like confectionery, beauty, tobacco, fashion and jewelry.

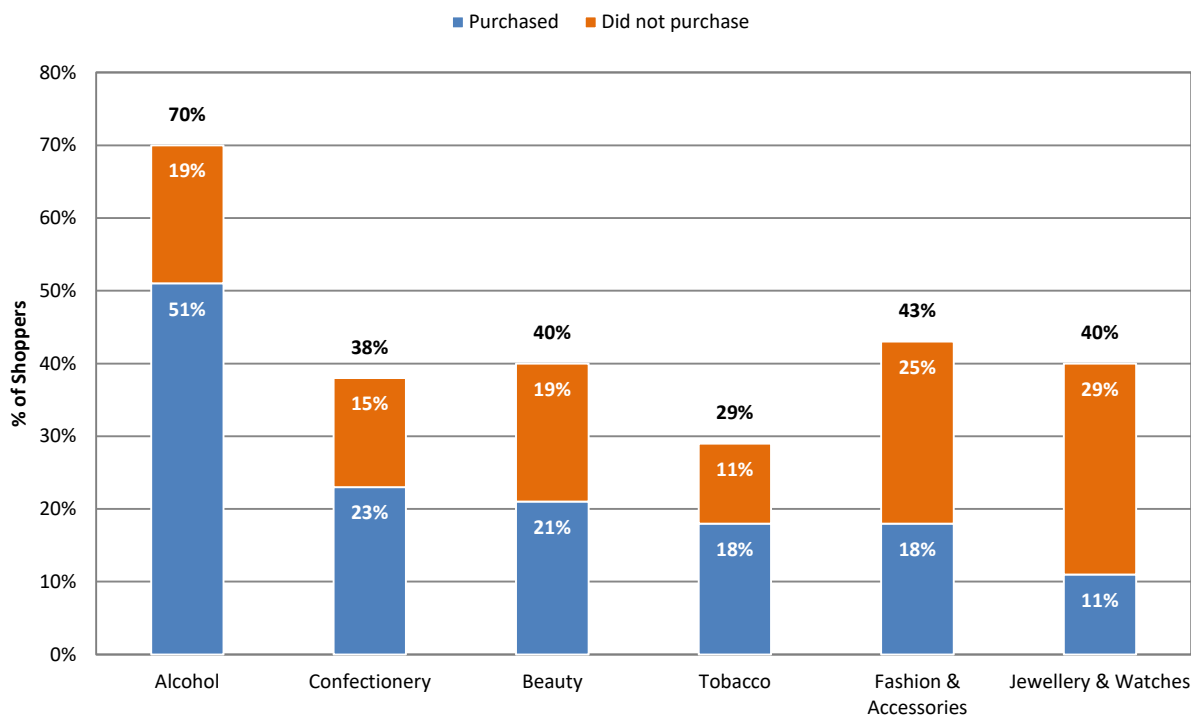
⁵¹ Source: Destination Canada, 2016 Year in Review.

⁵² <http://www.cbc.ca/news/canada/the-canada-u-s-border-by-the-numbers-1.999207>; <https://www.cbsa-asfc.gc.ca/bwt-taf/menu-eng.html>; <https://apps.cbp.gov/bwt/mobile.asp?action=n&pn=3310>

⁵³ Source: Statistics Canada CANSIM Table 427-0004 Number of international tourists entering or returning to Canada, by province of entry monthly (persons). Includes travelers who stayed overnight.

⁵⁴ Source: U.S. Department of Commerce, International Trade Administration, National Travel and Tourism Office (NTTO).

Figure 6-1: Purchase Conversion Rates of Shoppers, by Product – U.S. Land Borders, 2017

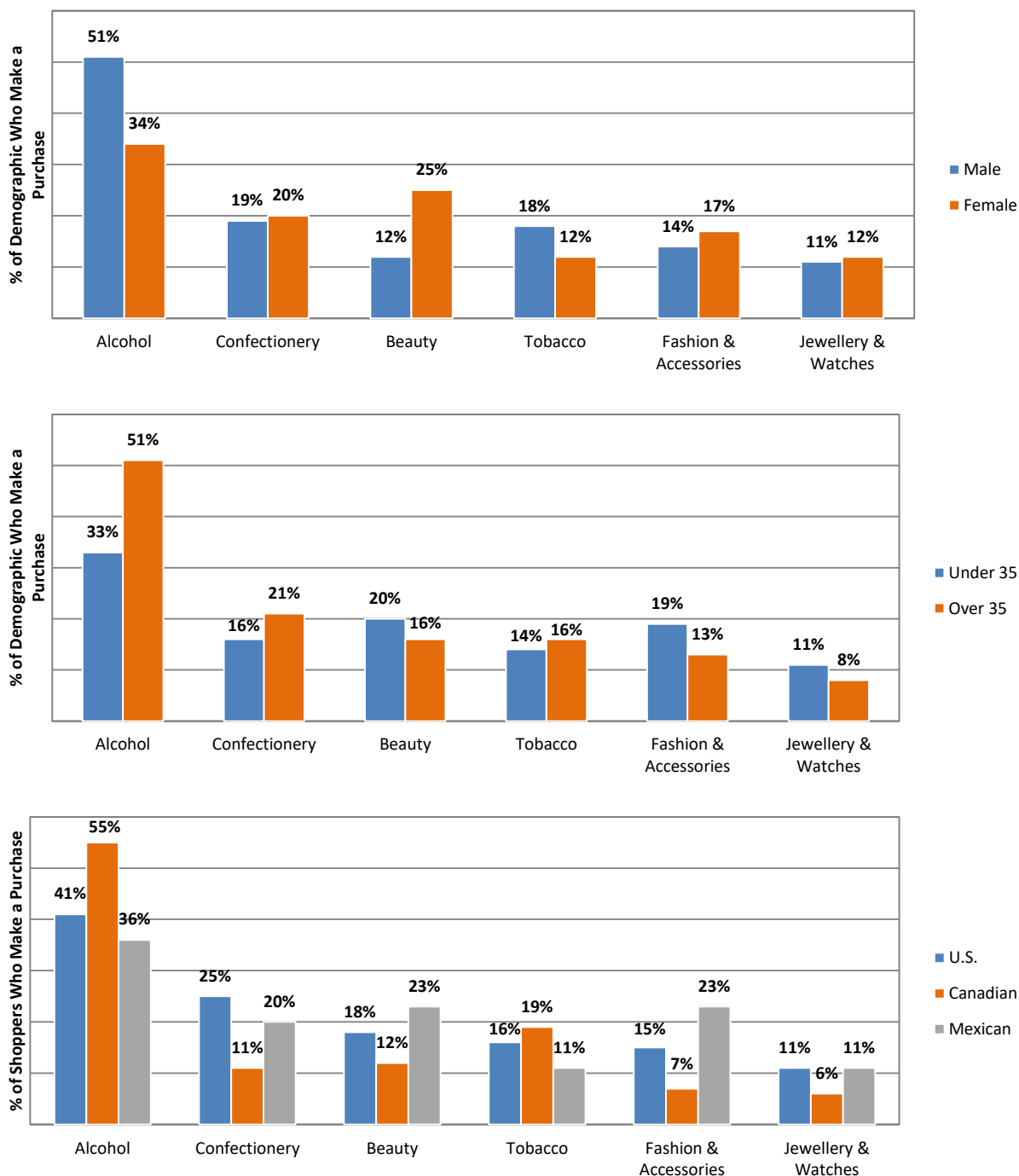


Source: American Border Stores Duty Free Retail Study, CiR

Figure 6-2 provides a further breakdown of the most popular duty free items purchased by certain shopper demographics. Alcohol is the most prominent duty free purchase across all demographics, though it is most commonly purchased by older shoppers and males, with 51% making an alcohol purchase. This is in comparison to younger shoppers and females, who tend to diversify their cart with other items such as beauty and fashion products, in addition to alcohol.

Canadians show a higher incidence of purchasing alcohol and tobacco – goods often subject to relatively higher taxes within Canada – over Americans and Mexicans. In fact, duty free purchases by Canadians are concentrated within these two categories, whereas all other products are less likely to be purchased by Canadians than Americans or Mexicans.

Figure 6-2: Purchase Incidence of Shoppers, by Demographic/Product/Nationality – U.S. Land Borders, 2017

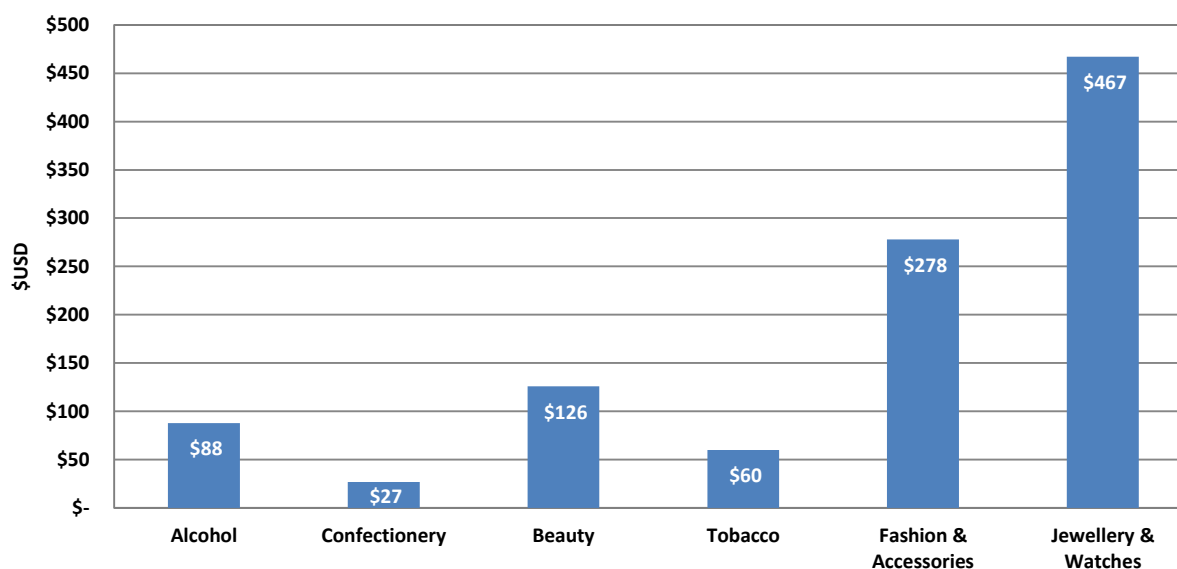


Source: American Border Stores Duty Free Retail Study, CiR

6.3 Duty Free Spending at Land Borders

Figure 6-3 provides context to the extent of duty free shopping at land borders by showing the magnitude of average duty free purchases at U.S. borders by product category. Alcohol, the most frequently purchased duty free good along U.S. borders, generates an average of nearly US\$90 per purchase. Fashion items and jewelry, which generally command a higher price per unit but are purchased less often than other goods, top out the average spend at US\$280 and US\$470 per purchase, respectively.

Figure 6-3:
Average Duty Free Spend by Purchasers at Land Borders, by Product Category
U.S. Land Borders, 2017

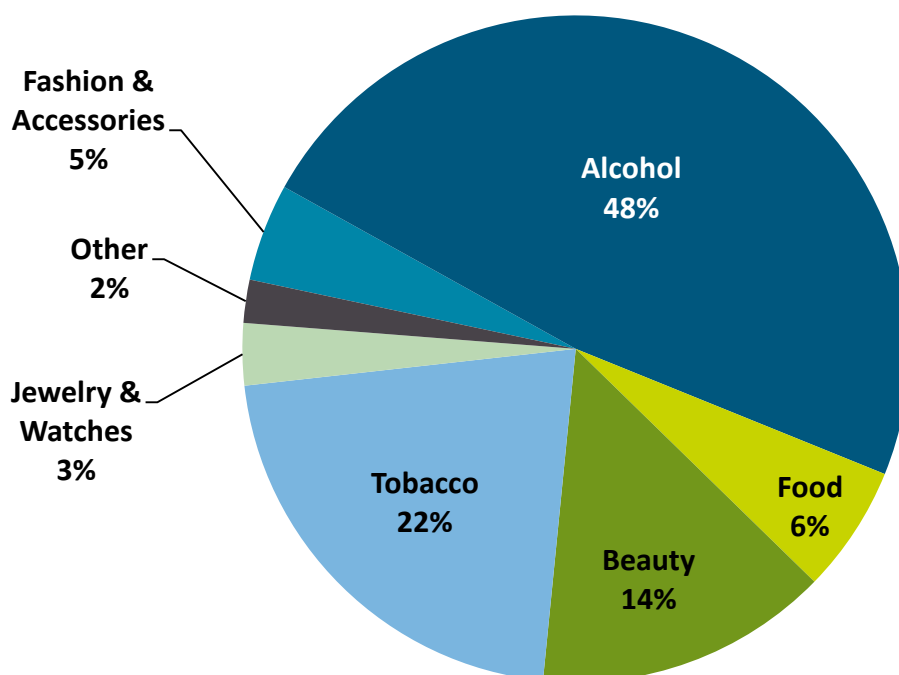


Source: American Border Stores Duty Free Retail Study, CiR

At Canadian land borders, duty free spend totaled US\$119 million in 2016.⁵⁵ The shares of duty free purchases by product category are broadly similar as those on the U.S. side, as summarized in **Figure 6-4**. Alcohol accounts for roughly half of all duty free sales, followed by tobacco (22%) and beauty products (14%). The prevalence of high-tax items, particularly alcohol and tobacco, indicates that those crossing at land borders may be more enticed by the cost-savings offered at duty-free shops rather than luxury or exclusive items commonly found in other product categories like fashion, jewelry, and souvenirs. This differs from the cruise industry where there is a greater propensity for travelers to explore and buy higher priced/luxury items. As shown previously in **Figure 5-4**, nearly half (47%) of cruise guests, browsed watches and jewelry and nearly half of those who browsed, made purchase that averaged \$583.

⁵⁵ Canadian Border Services Agency (<https://www.moodiedavittreport.com/canadian-duty-free-stores-post-healthy-sales-increases-in-2016/>).

Figure 6-4:
Proportion of Duty Free Spend, by Product Category
Canada Land Borders, 2016

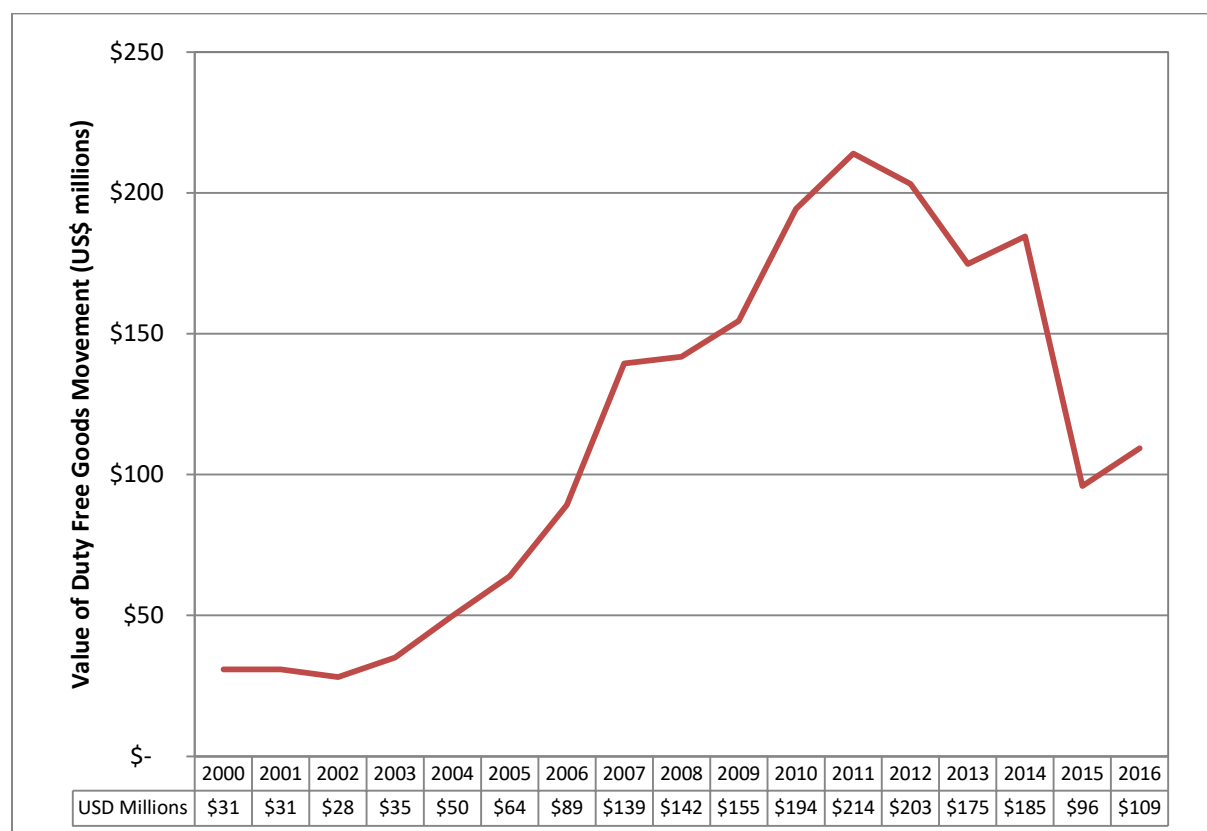


Source: CBSA, <https://www.moodiedavittreport.com/canadian-duty-free-stores-post-healthy-sales-increases-in-2016/>

Although limited data is available for land border store duty free spending in South America, one study estimated approximately US\$109 million in duty free spend along the Brazilian and Uruguayan border alone in 2016, indicating that duty free is even more popular in the southern hemisphere. **Figure 6-5** shows the trend in duty free spend along the Brazilian and Uruguayan border from 2000 to 2016. Duty free spend at the land border peaked in 2011 at nearly US\$214 million.⁵⁶ The subsequent decline was due to the economic downturn in the region, especially Brazil, but the economies have since shown recovery.

⁵⁶ Uruguay/Brazil Land Border Study, provided by DFWC. Currency conversion based on annual averages from Oanda (<https://www.oanda.com/currency/average>). 1 Uruguayan Peso = US\$0.03163, on 3 July 2018.

Figure 6-5: Estimated Value of Duty Free Goods, 2000-2016



Source: Uruguay/Brazil Land Border Study, provided by DFWC. Pesos converted to US\$.

6.4 Land Sales Channel Summary

Total estimated duty free and travel retail sales in the land sales channel is \$2.8 billion. Alcohol shows the highest purchase conversion rates (51%) at U.S. land border duty free stores. At Canadian land borders, alcohol accounts for about 50% of all duty free sales, followed by tobacco (22%) and beauty products (14%). Duty free spending along the Brazilian-Uruguayan border in 2016 is estimated at approximately US\$109 million.

7 Economic impact of duty free and travel retail in the Americas

Key Figures

- **US\$12.9 billion** was spent on duty free and travel retail in the Americas in 2016: **US\$3.9 billion** in North America and **US\$9.0 billion** in Latin America and the Caribbean.
- Duty free and travel retail spending in the Americas directly accounts for an estimated **61,400 jobs** and **US\$8.2 billion in GDP**.
- The indirect and induced economic impact of duty free and travel retail spending in the Americas is **48,600 jobs** and **US\$2.4 billion in GDP**.
- Including the businesses that supply the goods and services (*indirect impacts*) and spending of employees in the wider economy (*induced impacts*), duty free and travel retail in the Americas is estimated to support a total of **110,000 jobs** and **US\$10.6 billion in GDP**.

This section estimates the economic contribution that duty free and travel retail currently makes to economic activity in the Americas, and highlights the importance of this sector to regional economies and populations. The results, broken down by type of impact, region and sector are provided in the following subsections. Additionally, the sector facilitates the wider activities of which it is part, such as transport and tourism, and so contributes even more broadly to economic activity than the quantified economic impacts suggest..

The economic impacts attributable to duty free and travel retail in the Americas were estimated using total sales data from a variety of available sources, including Airports Council International – North America’s 2017 Concessions Benchmarking Survey, Airports Council International World’s Key Performance Indicators Report 2016, Generation Research, Cruise Lines International Association, Counter Intelligence Retail Ltd. and Canadian Border Services Agency. By applying economic multipliers, it was then possible to estimate the associated employment and GDP generated by duty free and travel retail spending in the Americas. The economic impacts are presented in terms of employment (jobs) and GDP. In addition, the study also examines how duty free and travel retail in the region facilitates economic growth and development in a wide spectrum of industries.

7.1 Total Sales by Region and Sector

Based on an analysis of sales data, an estimated US\$12.9 billion was spent on duty free and travel retail in the Americas in 2016. Of this total, US\$3.9 billion was spent in North America and US\$9.0 billion in Latin America and the Caribbean.⁵⁷ Total spending in the Latin America and Caribbean region is typically higher than spending in North America due to higher tax rates and exemptions in South America that encourage greater spending on duty free retail. In addition, retail and duty free at airports in North America (U.S. and Canada only) do not appear to be as well developed as in the rest of the Americas, Europe and Asia Pacific, contributing to lower average spend rates.

Total duty free and travel retail sales also vary across sales channels. The total duty free sales handled by airports and airlines are higher than for other sales channels. With US\$6.7 billion in total sales in 2016, aviation comprises approximately half of sales in the Americas, with higher value goods purchased at airports compared to other channels.⁵⁸ **Figure 7-1** provides a breakdown of the estimated total sales in the Americas by region and sales channel.

Figure 7-1: Total Duty Free and Travel Retail Sales in the Americas, by Region and Sector, 2016

Sales Channel	North America Total Sales (US\$ Billions)	Latin America & Caribbean Total Sales (US\$ Billions)	Americas Total Sales (US\$ Billions)
Aviation	\$1.9	\$4.8	\$6.7
Maritime	\$0.3	\$3.1	\$3.4
Land	\$1.6	\$1.1	\$2.8
Total	\$3.9	\$9.0	\$12.9

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

⁵⁷ Total sales at airports were estimated using data from Airports Council International – North America's 2017 Concessions Benchmarking Survey, Airports Council International's Key Performance Indicator Report 2016 and InterVISTAS analysis. Sales by airlines and ferries were estimated using data from Generation Research. Cruise duty free and travel retail sales were estimated using data from Generation Research, Cruise Lines International Association and Counter Intelligence Retail Ltd., while land sales were estimated using data from Generation Research and the Canadian Border Services Agency.

⁵⁸ Based on total sales derived from a combined variety of sources listed above.

7.2 Defining Economic Impacts

Economic impact is a measure of the employment, spending and economic activity associated with a sector of the economy, a specific project (such as the construction of new infrastructure), or a change in government policy or regulation. In this case, economic impact refers to the economic contribution associated with duty free and travel retail sales within the Americas.

In this study, economic impact is measured in two ways:

- **Employment:** The number of people employed by businesses directly or indirectly linked to duty free and travel retail activities in the Americas. It includes employees of duty free operators, as well as personnel of supplier industries.
- **Gross Domestic Product (GDP):** A measure of the money value of final goods and services produced by or associated with duty free and travel retail activities. It includes operating surplus of businesses, employee remuneration and capital consumption.⁵⁹

It should be borne in mind that these measures attempt to assess the gross level of activity or expenditure associated with duty free and travel retail in the Americas. As such, they are not “net” measures that weigh benefits against costs; nevertheless these measures can be useful in demonstrating the economic contribution of the industry to the region.

7.2.1 Categories of Economic Impact

There are three distinct types or categories of economic impact associated with duty free and travel retail, as described in the sections below.

- **Direct Economic Impact:** This is the employment and GDP associated with the operation and management of activities in the duty free and travel retail sector. This includes activities by the duty free operators, such as employment of sales staff at a duty free shop at a land border.
- **Indirect Economic Impact:** This is the employment and GDP generated by down-stream industries that supply and support the activities in the duty free and travel retail sector. For example, these could include wholesalers providing goods for inflight sales. Indirect employment is generated in industries that supply or provide services to those firms that directly serve the duty free and travel retail sector in the Americas.
- **Induced Economic Impact:** This captures the economic activity generated by the employees of firms directly or indirectly connected to the duty free and travel retail sector spending their wages and salaries in the national economy. For example, a duty free shop employee might spend his/her wages and salaries on groceries, restaurants, child care, dental services, home renovations and other items which, in turn, generate employment in a wide range of sectors of the general economy. This is often referred to as the “household spending” effect.

⁵⁹ The GDP contribution of an individual business or industry is sometimes referred to as Gross Value Added (GVA). GVA is broadly equivalent to GDP, whereby national GDP is the sum of the GVA of all industries plus taxes less subsidies on production. In this report, the term GDP is used to refer the contribution to GDP provided by the duty free and travel retail industry.

7.3 Direct Economic Impact by Region and Sales Channel

Economic multipliers were applied to the total estimated duty free and travel retail sales in the region. Using these multipliers, the direct employment and GDP generated by duty free and travel retail spending in the Americas is estimated. The resulting direct economic impact estimates are provided in **Figure 7-2** and **Figure 7-3** by region and sales channel. Duty free and travel retail spending in the Americas directly accounts for an estimated **61,400 jobs** and **US\$8.2 billion in GDP**.⁶⁰ Spending in North America is estimated to generate **20,400 jobs** and **US\$2.3 billion in GDP**, while spending in Latin America and the Caribbean supports approximately **41,000 jobs** and **US\$5.9 billion in GDP**.

Figure 7-4 shows the average amount spent on duty free and travel retail per direct job in each region and sales channel. Latin America and the Caribbean shows a higher average sales per job (approximately US\$220,000 per direct job) compared to North America (approximately US\$191,000 per direct job). The difference is likely due to the higher average spend rates in Latin America and the Caribbean, discussed in earlier sections of the report. Together, the Americas indicate an average of US\$210,000 in sales revenue per direct job. This average for the Americas includes both North America and Latin America and the Caribbean combined, and is higher than the North America average because the total sales revenue in Latin America and the Caribbean comprises a higher percentage share (approximately 70%) of total sales in the Americas as a whole.

Figure 7-2: Direct Employment Facilitated by Duty Free and Travel Retail Spending, 2016

Sales Channel	North America Direct Jobs	Latin America & Caribbean Direct Jobs	Americas Direct Jobs
Aviation	9,100	21,600	30,700
Maritime	1,600	13,300	14,900
Land	9,700	6,100	15,800
Total	20,400	41,000	61,400

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

⁶⁰ This study estimates the impact of duty free and travel retail only. It cannot be directly compared to the results in the Duty Free World Council economic impact study for Europe (Section 6), as that study includes the impact of all retail and other in-airport terminal services (such as car hire and food and beverage services). The ratio of sales revenue to direct jobs and direct GDP is different in the duty free and travel retail sales sector compared to other retail and in-airport terminal sectors because of the higher value of goods sold at duty free shops. Fewer employees would be needed to handle US\$1 million of sales of high-end value duty free products, while more employees per US\$1 million would be needed for other lower value products and services.

Figure 7-3: Direct GDP Facilitated by Duty Free and Travel Retail Spending, 2016

Sales Channel	North America Direct GDP (US\$ Billions)	Latin America & Caribbean Direct GDP (US\$ Billions)	Americas Direct GDP (US\$ Billions)
Aviation	\$1.1	\$3.2	\$4.3
Maritime	\$0.2	\$2.0	\$2.2
Land	\$1.0	\$0.7	\$1.7
Total	\$2.3	\$5.9	\$8.2

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

Figure 7-4: Average Duty Free and Travel Retail Sales per Direct Job, 2016

Sales Channel	North America Sales per Direct Job (US\$ Thousands)	Latin America & Caribbean Sales per Direct Job (US\$ Thousands)	Americas Sales per Direct Job (US\$ Thousands)
Aviation	\$211	\$223	\$219
Maritime	\$216	\$232	\$231
Land	\$168	\$186	\$175
Total	\$191	\$220	\$210

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

7.4 Indirect and Induced Economic Impacts by Region and Sales Channel

As noted previously, the economic impact of duty free and travel retail does not end with the direct impacts. Other sectors of the economy benefit from duty free and travel retail operations. This includes *indirect impacts* in businesses that supply the goods and services to the direct activities linked to duty free and travel retail, and *induced impacts* resulting from direct and indirect employees spending their wages in the general economy. The indirect and induced impacts were estimated using economic multipliers derived from government data, as detailed in **Appendix B**.

Based on the application of economic multipliers, it was estimated that **48,600 indirect and induced jobs** are related to duty free and travel retail spending in the Americas. Broken down, **19,100 indirect jobs** are generated in industries that supply the businesses directly related to the duty free and travel retail sector, while **29,400 induced jobs** are supported as a result of demand for goods and services generated by wages and salaries of those directly or indirectly linked to duty free and travel retail.⁶¹

A combined multiplier impacts (indirect and induced) contribution of **US\$2.4 billion in GDP** is made each year by the duty free and travel retail sector in the Americas. Separately, the indirect and induced GDP contributions are estimated at **US\$1.6 billion** and **US\$0.9 billion** per annum, respectively.⁶²

Figure 7-5 and **Figure 7-6** summarize the indirect and induced employment and GDP attributable to ongoing duty free and travel retail activities in the Americas in 2016, by region and by sales channel.

Figure 7-5: Indirect and Induced Employment Economic Impacts, 2016

Sales Channel	North America Indirect & Induced Jobs	Latin America & Caribbean Indirect & Induced Jobs	Americas Indirect & Induced Jobs
Aviation	3,700	20,200	23,900
Maritime	700	13,700	14,400
Land	4,000	6,300	10,200
Total	8,400	40,200	48,600

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

⁶¹ Indirect and induced employment impacts may not add up due to rounding.

⁶² Indirect and induced GDP impacts may not add up due to rounding.

Figure 7-6: Indirect and Induced GDP Economic Impacts, 2016

Sales Channel	North America Indirect & Induced GDP (US\$ Billions)	Latin America & Caribbean Indirect & Induced GDP (US\$ Billions)	Americas Indirect & Induced GDP (US\$ Billions)
Aviation	\$0.3	\$0.9	\$1.2
Maritime	\$0.1	\$0.6	\$0.6
Land	\$0.4	\$0.2	\$0.6
Total	\$0.8	\$1.7	\$2.4

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

7.5 Total Economic Impacts by Region and Sales Channel

Adding the activity directly related to the sales channel to the indirect and induced impacts that flow from that, the total economic impact of duty free and travel retail in the Americas is an estimated **110,000 jobs** and **US\$10.6 billion in GDP**. The combined total impacts of duty free and travel retail in the Americas is summarized in **Figure 7-7** and **Figure 7-8**.

The spending on duty free and travel retail in North America is estimated to generate a total of **28,800 jobs** and **US\$3.1 billion in GDP**. Duty free and travel retail activities in Latin America and the Caribbean support approximately **81,200 jobs** and **US\$7.5 billion in GDP**.

Figure 7-7: Total Employment Economic Impacts, 2016

Sales Channel	North America Total Jobs	Latin America & Caribbean Total Jobs	Americas Total Jobs
Aviation	12,800	41,800	54,600
Maritime	2,300	27,000	29,300
Land	13,700	12,300	26,100
Total	28,800	81,200	110,000

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

Figure 7-8: Total GDP Economic Impacts, 2016

Sales Channel	North America Total GDP (US\$ Billions)	Latin America & Caribbean Total GDP (US\$ Billions)	Americas Total GDP (US\$ Billions)
Aviation	\$1.5	\$4.1	\$5.6
Maritime	\$0.3	\$2.5	\$2.8
Land	\$1.3	\$0.9	\$2.3
Total	\$3.1	\$7.5	\$10.6

Note 1: Figures may not sum to totals due to rounding. Aviation covers airports and airlines, maritime covers cruise and ferries, land covers border-crossings. North America includes the U.S. and Canada only. Mexico is included in Latin America and Caribbean.

Note 2: Sales associated with diplomatic stores are not included in the analysis.

7.6 Wider Economic Benefits of Duty Free and Travel Retail

Beyond the direct, indirect and induced economic impacts, duty free and travel retail also contribute other positive, wider economic benefits (or catalytic impacts), in particular through the way in which they help sustain the broader industries of which they are part. Some key dimensions of these wider impacts include:

- **Enhancing the visitor experience**

Duty free and travel retail enhances the visitor experience at a destination across all sales channels – aviation, maritime and land.

Air transportation passengers' retail exposure and choices have expanded with the increased participation of, in particular, airports in the retail markets. As mentioned in **Section 3**, current literature on consumer behaviour indicates that there are unique conditions within an airport environment that generally induce passengers to shop and buy duty free, such as dwell time and the role it plays in increasing susceptibility to impulse purchases.

In addition, duty free and travel retail is a highly valued component of cruise travel in this region. It is considered by the majority of cruisers to be an important component of their vacation experience, and thereby an attractor for cruise travel, as mentioned in **Section 5**.⁶³ Also note that duty free spending by cruise travellers is consistently high across the worldwide cruise industry and tends to outpace other sectors, such as airports, because cruisers are exposed to duty free opportunities throughout the duration of their trip, and are likely to make multiple purchases.⁶⁴

At land borders, shoppers at duty free stores are motivated by the potential convenience and cost effectiveness of crossing a land border to take advantage of duty free offerings, as revealed in **Section 6**. In this region, which sees a large amount of duty free-eligible border crossers relative to other regions, duty free and travel retail is a major sales generator near borders and captures spending by customers who would otherwise be underserved by full-price retail in high-tax jurisdictions.

- **Providing a valuable net revenue stream to help offset airport costs**

Every time a passenger makes a purchase from a duty free shop (whether it is wine, cosmetics, tobacco, jewelry, gifts or confectionery), some of the revenue generated from that purchase contributes to the non-aeronautical revenues collected by the airport through the concession arrangements it has with retailers.⁶⁵ As mentioned in **Section 4**, retail concessions comprise 9% and 30% respectively of the non-

“*The introduction of Arrivals duty free sales has also served to enhance the non-aeronautical revenues of the Department of Airport Operations through the leasing of the necessary commercial space for the Arrivals store.*”

Department of
Communication and
Information,
Bermuda Government

⁶³ CiR, *North American & Caribbean Cruise Duty Free Retail Study 2015*.

⁶⁴ Ibid.

⁶⁵ The Moodie Report (7 December 2012). *First Arrivals duty free shop in Bermuda opens for business*. (<https://www.moodiedavittreport.com/first-arrivals-duty-free-shop-in-bermuda-opens-for-business/>)

aeronautical revenues of airports in North America and Latin America and the Caribbean. More specifically, duty free retail in North America accounts for roughly half of airports' concession revenues, while duty free sales contribute up to 71% of total airport concession revenue in Latin America and the Caribbean.

By improving an airport's retail concessions revenue, and thereby contributing to overall non-aeronautical revenue, duty free and travel retail assist in offsetting the costs incurred when operating an airport, as well as the expenses of maintaining and expanding airport infrastructure. Other ways for an airport to recover these costs and expenses are through aeronautical fees charged to airlines (such as aircraft landing fees and parking fees), or by levying an additional fee to passengers on top of their base air fare, often referred to as a passenger facility charge or airport improvement fee. These additional charges to airlines and passengers decrease the competitiveness of an airport, as airlines and passengers would prefer to avoid these fees and choose alternative airports or not travel at all. In line with this, non-aeronautical revenue has become an increasingly important alternative source of income for airports worldwide, which enhances competitiveness and passenger satisfaction as discussed in **Section 4**.

With infrastructure costs co-funded through the financial contribution made by non-aeronautical services, including duty free and travel retail, aeronautical fees charged to airlines and additional passenger fees are reduced. This improves the competitive position of an airport, enabling it to attract more air carriers, offer additional air services and increase passenger demand.

Duty free and travel retail therefore assists in enhancing aviation connectivity, helping improve long-term economic growth. Such connectivity provides linkages between a country/region and the global economy through greater connections to international business markets and greater access to resources. Industries and activities that would otherwise not exist in a region can be attracted by improved air transport connectivity. A body of research has developed over the last 15 years or so which has examined and quantified the contribution of air transport to trade, investment and economic growth. Through the use of different empirical methods and data sets, this research has consistently found a significant and positive relationship between aviation connectivity and economic growth.

■ **Facilitating tourism by supporting the cruise industry**

When on board a cruise ship, passengers are able to shop for a wide range of products sold at on-board duty free shops throughout their entire journey at sea. In addition, once ashore, passengers also have the opportunity to purchase merchandise at duty free stores at local ports. Cruise lines offer shore excursions specifically for those interested in shopping, host on-board shopping seminars prior to arriving at a port, and have designated staff knowledgeable in retail opportunities at each port to assist passengers. Cruise lines present these services because spending by cruise passengers on duty free and travel retail also serve as an additional revenue stream for cruise lines and contribute to the cruise lines' profitability.⁶⁶ As noted in **Section 5**, on-board spending, including duty free and travel retail, generates a significant portion of income to cruise lines. It allows cruise lines and local ports to generate additional income beyond the price of cruise transport itself.

Positive commercial retail turnover enables cruise lines to recover costs and increase their overall revenue. Cruise lines are then able to use profits earned to enhance ship capabilities, increase services available and increase marketing investment. When done effectively, these initiatives improve the guest experience and expand passenger demand for cruising. Therefore, profits from on-board shops contribute to the increase in the volume of passengers and support the growth of the cruise industry.

Growth in the volume of cruise passengers leads to increased tourism at cruise destinations. Cruise tourism is a major industry in the Americas, especially in the Caribbean, which accounts for 35% of global cruise capacity.⁶⁷ As mentioned in **Section 5**, the cruise sector is among the largest and fastest growing contributors to the tourism industry, generating roughly US\$35-40 billion in net revenues annually. By supporting the growth of the cruise industry, duty free and travel retail play an important role in facilitating the tourism industry in the region.

Furthermore, with increased cruise tourism in a region, "cruise ships have a powerful impact on the countries where they operate since they require good port infrastructure, business and services, and generate a significant amount of economic revenue and employment for the region."⁶⁸ The impact of cruise ship activity at a port extends beyond the spending by passengers on items such as retail purchases, tours, food and beverage and accommodations (overnight hotel stays) at home ports. It also includes spending by ship crew while in port on retail, transportation and food and beverage, as well as spending by cruise lines while in port. Cruise lines purchase food and beverage items to stock the ship, fuel, machinery and equipment. Moreover, cruise ships require services such as maintenance and repair, and transportation and storage while in port. Therefore, cruise tourism is an important economic engine

“

“Considering that the Caribbean has the highest rates of tourist arrivals in the world, cruise ships have a powerful impact on the countries where they operate since they require good port infrastructure, business and services and generate a significant amount of economic revenue and employment for the Region.”

Association of
Caribbean States

”

⁶⁶ Cruise Critic (14 September 2017). Duty-free shopping on cruises. (<https://www.cruisecritic.com/articles.cfm?ID=867>)

⁶⁷ Cruise Lines International Association (CLIA), 2016 Year In Review. (https://www.cruising.org/docs/default-source/annual-reports/clia_yearinreview_infog_2016_5-22.pdf?sfvrsn=2)

⁶⁸ Association of Caribbean States (July 2016). Cruise Tourism in Greater Caribbean Region. (http://www.acs-aec.org/sites/default/files/cruise_tourism_in_the_greater_caribbean.pdf)

for the region, bringing people into the region for tourism and supporting other local businesses. A study on 21 cruise destinations in Latin America and the Caribbean shows that cruise tourism generated close to US\$2.0 billion in direct spending by passengers, ship crew and cruise lines, and supported over 45,000 local jobs among the included destinations in the 2011/2012 cruise year.⁶⁹ Another study estimated that in 2016, cruise industry expenditures in the U.S. amounted to US\$22 billion, and directly supported roughly 160,000 jobs throughout the country.⁷⁰

■ Creating opportunities for retail activity at land borders

Travelers crossing land borders can often stop at duty free shops situated en-route to the crossing itself. As mentioned in **Section 6**, 85% of shoppers in duty free stores on the U.S.-Mexico or U.S.-Canada border, went on to make a purchase. Duty free spend at land borders in the Americas is stimulated by high levels of travel frequency, as well as high-tax regimes that incentivize residents to cross the border and buy duty free when possible.

Developing duty free stores at land borders creates opportunities for retail activity within a country. For example, prior to this year, the Brazilian legislature did not permit duty free stores to operate inside its borders, and currently there are no duty free stores operating on the Brazilian side of the country's land borders. However, with the change in the law the first duty free shop is scheduled to open late 2018.⁷¹ A neighboring country with which it shares a border, Uruguay, has established a successful duty free border store industry. Brazilian traders and individual customers traveling regularly across the Uruguay-Brazil borders purchase goods duty free on the Uruguay side of the border. As mentioned in **Section 6**, this amounted to approximately US\$109 million. Without any duty free stores on the Brazil side of the border, there is no opportunity for Uruguay travellers to make any duty free purchases prior to crossing the border.⁷² Permitting land border duty free shops in Brazil is seen as an important opportunity across both sides of the border.⁷³

By creating opportunities for retail activities at land borders, duty free store operations facilitate economic activity in other areas of the economy along the supply chain, and support growth in the local and regional economy through increased trade and inflow of foreign currencies to the country.⁷⁴

“Brazil’s new regime to allow duty free stores inside its border cities is an important opportunity for expansion of the existing duty free market.”

Carlos Loaiza,
Secretary General and
Advisor,
Chamber of Free Shop
Entrepreneurs of Uruguay

⁶⁹ Business Research and Economic Advisors (September 2012). *Economic Contribution of Cruise Tourism to the Destination Economies*. (<http://www.f-cca.com/downloads/2012-Cruise-Analysis-vol-1.pdf>)

⁷⁰ Business Research and Economic Advisors (August 2017). *The Contribution of the International Cruise Industry to the U.S. Economy in 2016*. (http://cruising.org/docs/default-source/research/us_economicimpact-100217.pdf?sfvrsn=2)

⁷¹ The Moodie Report (6 February 2018). *Momentum quickens for increase in Brazilian inbound duty free allowance as first land border arrivals shop openings near*. (<https://www.moodiedavittreport.com/momentum-quickens-for-increase-in-brazilian-inbound-duty-free-allowance-as-first-land-border-arrivals-shop-openings-near/>)

⁷² The Moodie Report (24 October 2012). *Brazil legislates to introduce duty free border stores*. (<https://www.moodiedavittreport.com/brazil-legislates-to-introduce-duty-free-border-stores/>)

⁷³ The Moodie Report (29 July 2014). *Uruguayan border store chamber confident on allowances resolution*. (<https://www.moodiedavittreport.com/uruguayan-border-store-chamber-confident-on-allowances-resolution/>)

⁷⁴ Uruguay/Brazil Land Border Study, provided by DFWC.

Taken together, these contribute to an overall sense of a region's attractiveness and competitiveness. In effect, the wider economic benefit of duty free and travel retail is to increase the productive potential of the economy (in economist terms, moving the production-possibility frontier). Increased activity in duty free and travel retail could potentially enable economies to attract more tourists, increase air service connectivity, conduct more trade and draw more investment. The overall effect of all these mechanisms is an increase in employment and GDP.

It should be noted that wider economic benefits are not a simple matter of the duty free and travel retail generating employment and economic activity in the same way that direct, indirect and induced impacts arise. Economies are far more complex than that. It clearly takes a wide range of players acting together to generate economic growth – government, business, infrastructure providers, residents, etc. For example, opening duty free shops alone does not guarantee large numbers of tourists. One also needs hotels, restaurants, retail, entertainment, etc. to make an attractive tourism destination. Nevertheless, the presence of the duty free and travel retail sector, and the financial contribution it makes, facilitates wider economic development, as well as helping shape the visitor experience of international travelers.

7.7 Potential for Enhanced Duty Free and Travel Retail

Earlier sections identified differences in duty free and travel retail spending patterns across the Americas in the aviation, maritime and land sales channels. In addition, differences in duty free and travel retail activity were shown between North America and Latin America and the Caribbean. Further review of these differences reveals that there may be opportunities for enhancing duty free and travel retail spending in the region, and as a result, increasing the contribution made to overall economic activity.

Potential areas for improving duty free and travel retail in the Americas and its associated economic benefits are discussed below:

- **Development of retail activity at airports in North America**

Section 4 examined how airport retail is less prevalent and less developed in the Americas compared to other regions of the world. In particular, average spend rates are lower in the U.S. than in other countries in the Americas and globally. This may be due to higher tax rates and high purchase exemptions in countries in South America. However, lower allocation of retail space, shorter dwell times and differing airport governance structures in the U.S. also impact retail-specific spending.

Non-aeronautical revenue comprised a smaller proportion (36.5%) of total revenue for airports in North America, while non-aeronautical revenue accounted for a higher share (41.6%) in Latin America and the Caribbean airports.⁷⁵ Given these differences, an opportunity exists for airports in North America to increase focus on non-aeronautical revenue sources, in particular commercial retail, and further develop duty free and travel retail activity. For example, duty free and travel retail sales could be developed so as to help support the development of infrastructure needed at airports in the U.S. – which is expected to amount to nearly \$100 billion between 2017-2021, according to a study by ACI-NA.⁷⁶

⁷⁵ ACI World, Airport Economics report: Key Performance Indicators 2016

⁷⁶ ACI-NA, Airport Infrastructure Needs: 2017 – 2021

(<http://www.aci-na.org/newsroom/press-releases/us-airport-infrastructure-needs-near-100-billion>)

- **Continued support and improvement of opportunities for cruise travelers**

Duty free and travel retail is a significant component of the cruising experience, as stated in **Section 5**. Cruise travelers are exposed to a wide variety of duty free shopping both on-board the ship and ashore at port stops. Frequent exposure to duty free opportunities throughout the cruise itinerary enables travelers to make multiple purchases, and results in higher duty free spend rates compared to other sales channels.

Although duty free and travel retail is already well-integrated within the cruise industry in the Americas, it is essential to continue to support duty free and travel retail operations on cruise lines and at cruise ports. With high duty free and travel spend rates among cruise travelers and the important contribution this activity makes to cruise profitability, it is vital to keep this market active and continue to meet the demand of cruise travelers by constantly improving duty free and travel retail opportunities. Cruise passenger arrivals in the Caribbean have seen steady growth, increasing by 2.4% in 2017 according to the Caribbean Tourism Organization.⁷⁷ Enhancing duty free and travel retail activity for cruise travelers will further facilitate cruise tourism in the region and, accordingly, support other local sectors, as discussed in **Section 7.6**.

- **Establishment of new duty free shops at land borders**

It is shown in **Section 6** that land border crossers are characterized with high levels of travel frequency, and have high purchase conversion rates for duty free products, due to potential convenience and cost effectiveness, especially in countries with higher tax rates. Duty free shops support a large customer base that may not purchase certain commodities (such as alcohol, fashion and jewelry) at full retail prices in high-tax jurisdictions.

The sales generated by duty free and travel retail operations in the Americas is expected to increase even further with the establishment of new duty free shops at land borders in Brazil, as indicated in **Section 7.6**. It is anticipated that over 30 new duty free shops could open along the Brazilian land border, generating additional duty free and travel retail revenue and, as a result, further contributing to the growth of the local and regional economy.⁷⁸

⁷⁷ Caribbean Tourism Organization, CTO Caribbean Tourism Performance Report 2017 & Outlook (<http://www.onecaribbean.org/events-calendar/industry-media-conf/>)

⁷⁸ The Moodie Davitt Report (6 February 2018). *Momentum quickens for increase in Brazilian inbound duty free allowance as first land border arrivals shop openings near*. (<https://www.moodiedavittreport.com/momentum-quickens-for-increase-in-brazilian-inbound-duty-free-allowance-as-first-land-border-arrivals-shop-openings-near/>)

Appendix A: Airport Data Sources

This study utilized a number of information sources (developed by different data providers) for the airport sales channel. The following section provides a more detailed description of the different information sources.

Moodie Davitt

- **The Airport Commercial Revenues Study (2015)** – the report is produced by Moodie Research and The S-A-P Group (Strategic Airport Planning). This study is an industry leading benchmarking study of commercial performance at airports worldwide. The report contains information that is collected directly from the airports regarding commercial revenue and associated activities. This report is well-respected and is a frequently referenced report by commercial managers and executives at airports.

Airports Council International

- **Airport Economics Report: Key Performance Indicators 2016** – this report provides worldwide data from a large sample of airports in each key global region. The data includes ACI's own survey data as well as publicly available financial information. The North America sample includes 141 U.S. airports and 12 Canadian airports. The Latin America and Caribbean sample includes a total of 182 airports throughout the sub-region (including Mexico).⁷⁹
- **2016 Concessions Benchmarking Survey** – this report provides concessions data on a large sample of airports in the U.S. and Canada only. The data includes ACI-NA's (ACI North America) own survey data, filled out by participating airport authorities. The sample includes 83 U.S. airports and 9 Canadian airports.
- **Subset of Concessions Benchmarking Survey** – ACI-NA prepared a special of data that is representative of the 24 largest international airports in the U.S. and the 6 largest international airports in Canada. Data on concessions operations is provided, which allow for data to be segmented based on size of airport based on traffic levels and on a country basis.
- **Annual World Air Traffic Report** – Annually, ACI produces its annual air traffic report that covers traffic trends in the world's major aviation markets. The publication provides airport traffic data, rankings and trends for over 2,400 airports in 175 countries globally.

⁷⁹ ACI World's Key Performance Indicators Report 2016 was used in this study. As this was the latest available report when this study commenced, data used in this study is based on this earlier data collection. It is noted that since then, ACI has released updated versions of the report.

Generation Research

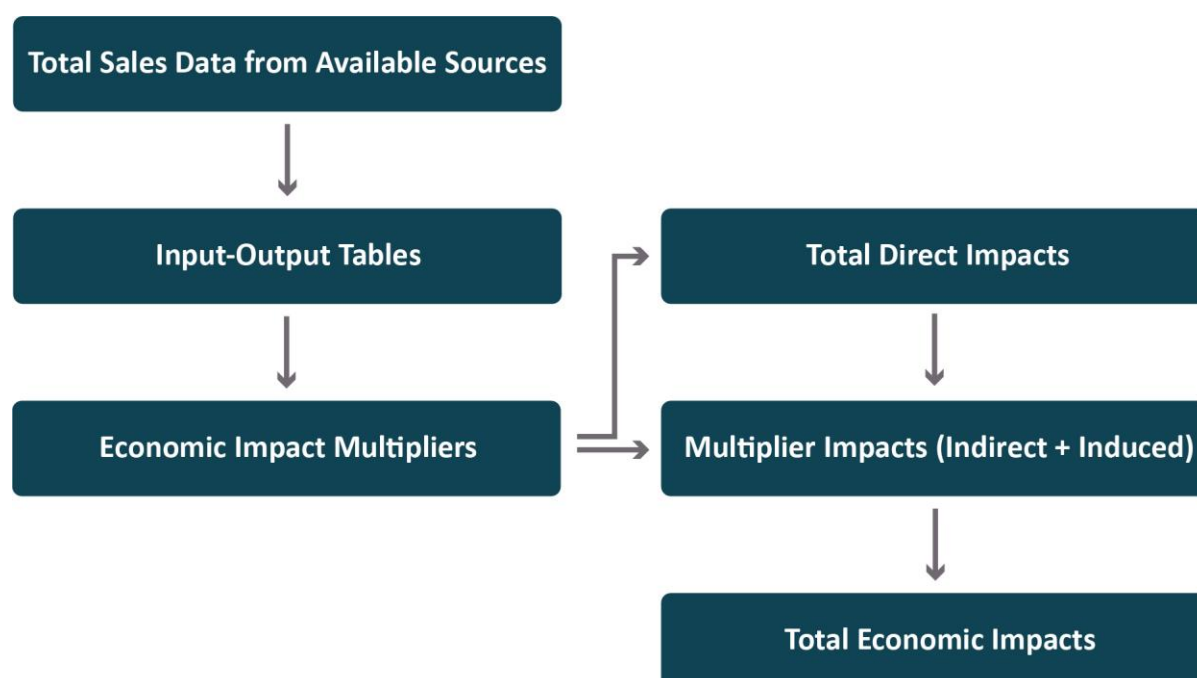
- Generation Research surveys, analyses and compiles information on the global duty free and travel retail market. Information is collected through their long-term industry partnerships and clients. Generation Research has built their database over the past 30 years, which contains historical trends in duty free and travel retail statistics.

Appendix B: Study Methodology

A data-driven methodology was applied to evaluate the economic impact of duty free and travel retail in the Americas. Reliable and recognized data sources were used as the basis of the analysis, and established quantitative techniques were used to generate the estimates.

The study methodology is summarized in **Figure B-1**. The key elements are described in the sections below.

Figure B-1: Study Methodology



Estimating Total Duty Free and Travel Retail Sales

Our estimates for the total duty free and travel retail in the Americas are based on available data containing information on total sales in the region by sector in recent years. This included data and reports from Airports Council International – North America's 2017 Concessions Benchmarking Survey, Airports Council International World's Key Performance Indicators Report 2016, Moodie Davitt, Generation Research, Cruise Lines International, and Canadian Border Services Agency.

Economic Multipliers and Economic Impacts

Economic multipliers were applied to the total sales figures to estimate the associated direct employment and GDP contribution impacts. Indirect and induced effects were also estimated using economic multipliers, as is common practice for economic impact studies.

These multipliers were based on Input-Output models of the national economy in each country in the Americas. An Input-Output (I-O) model is a representation of the flows of economic activity within a region or country. The model captures what each business or sector must purchase from every other sector in order to produce a dollar's worth of goods or services. Using such a model, flows of economic activity associated with any change in spending may be traced either forwards (spending generating income which induces further spending) or backwards (e.g. visitor purchases of meals leads restaurants to purchase additional inputs - groceries, utilities, etc.). By tracing these linkages between sectors, I-O models can estimate indirect and induced impacts. These indirect and induced impacts are represented by economic multipliers, normally expressed as a ratio of total impacts (i.e. direct plus indirect plus induced) to direct impacts. Using the I-O model, multipliers can be produced for employment and GDP contribution, normally expressed in terms of a unit of direct impact (e.g. per direct job).

The size of these economic multipliers is a function of a number of factors:

- The nature of the industry or economic sector under consideration. Multipliers vary across different industries within the economy based on the mix of labor and other inputs, and the propensity of each industry to buy goods and services from within the economy. Some industries require large amounts of goods and services from other sectors of the economy, and therefore, have large multiplier impacts. Other sectors are more labor intensive and require fewer inputs from other sectors of the economy, resulting in smaller multiplier impacts.⁸⁰
- The amount of imports needed as an input to production. Industries or economic sectors that require large amount of imports have lower multiplier impacts as this part of the spending goes outside of the national economy (in essence, this part of the multiplier impact is occurring in another country).
- Propensity to consume domestic goods. The spending patterns of consumers in the national economy will affect the induced impacts. The greater the propensity to consume domestically produced goods and services, the greater is the multiplier effect. Similarly, higher spending on imports or higher savings rates will dampen the induced multiplier.⁸¹
- Government taxation and spending has a complex influence on the size of the multiplier impacts. Higher taxation rates can dampen multiplier impacts, although this can be offset by how the government chooses to spend these tax revenues.

It was not possible to obtain I-O tables for all countries in the study. For those countries, multipliers were used from the country that most closely matched the GDP per capita of the country with missing data.

As with any model of a complex economy, I-O models have their limitations. Nevertheless, I-O models are the most widely accepted and well-established means for estimating indirect and induced impacts, and are based on real data unparalleled in its detail and breadth.

⁸⁰ In such a case, the indirect impacts may be smaller than the induced impacts, as induced impacts are based on the spending of labour income.

⁸¹ In the case of savings, this is a function of the time period examined. The multiplier impacts capture the economic impact occurring in a particular year. Savings represent deferred spending that will occur at some time in the future. However, there is no reliable technique for estimating these longer term multiplier impacts.

Appendix C: Aeronautical vs Non-Aeronautical Revenues at Select Airports in the Americas

The annual reports for 3 airports in the U.S and Canada were reviewed and compared. The airports are: Los Angeles (LAX), New York (JFK), Toronto (YYZ). Two metrics were assessed for each, the share of non-aeronautical revenues versus share of aeronautical revenues and the share of retail revenue versus other non-aeronautical revenues for each airport. Reviewing the performance at individual airports provides a comparison with the aggregate country and regional level data.

Aeronautical Revenue versus Non-Aeronautical Revenue

- Over the past 10 years, Los Angeles (LAX) has had a relatively consistent share of aeronautical revenue at approximately 60% of total revenues and 40% attributed to non-aeronautical revenue.
- Comparatively, New York (JFK) shows an approximate allocation of 75% aeronautical revenue share and 25% of total revenues to non-aeronautical revenue.
- At Toronto (YYZ), the relative share of non-aeronautical revenues has increased steadily since 2007 from 28% to 44% in 2016.
- Only Toronto has shown a shift towards greater share of revenue coming from non-aeronautical sources over the past decade, whereas the 2 U.S. airports have remained relatively stable in their revenue profile.

Figure C-1: Los Angeles (LAX)

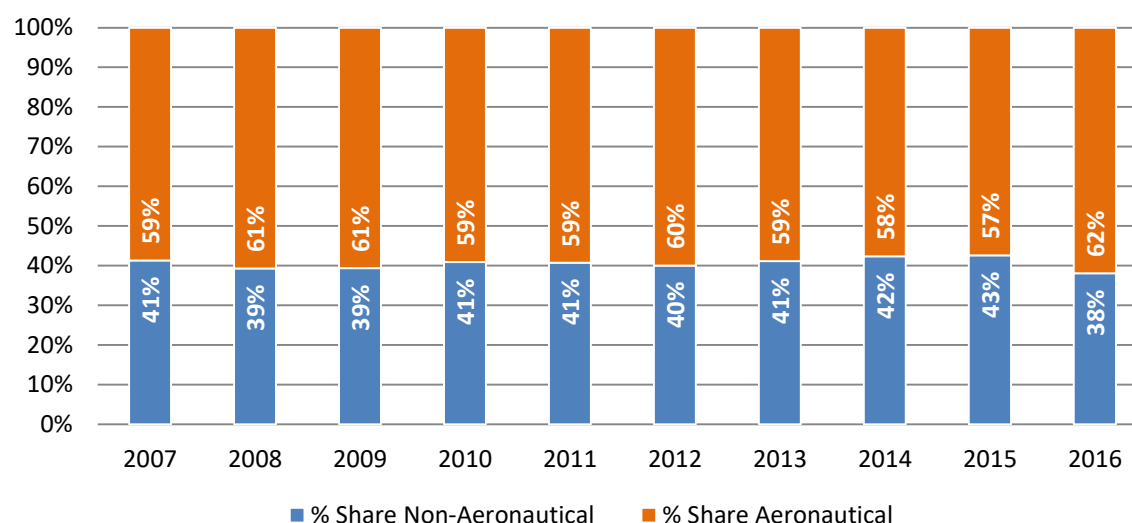


Figure C-2: New York (JFK)

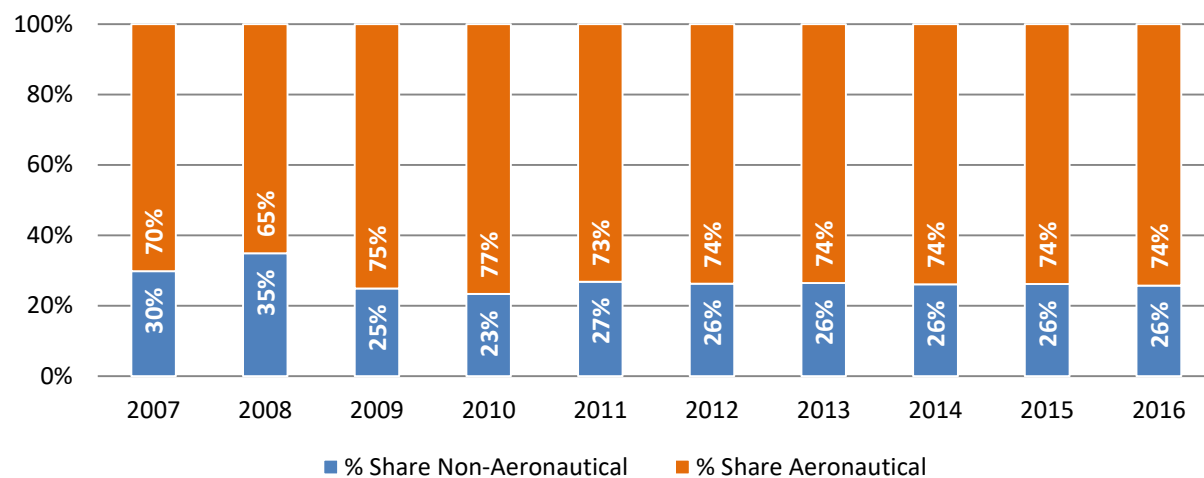
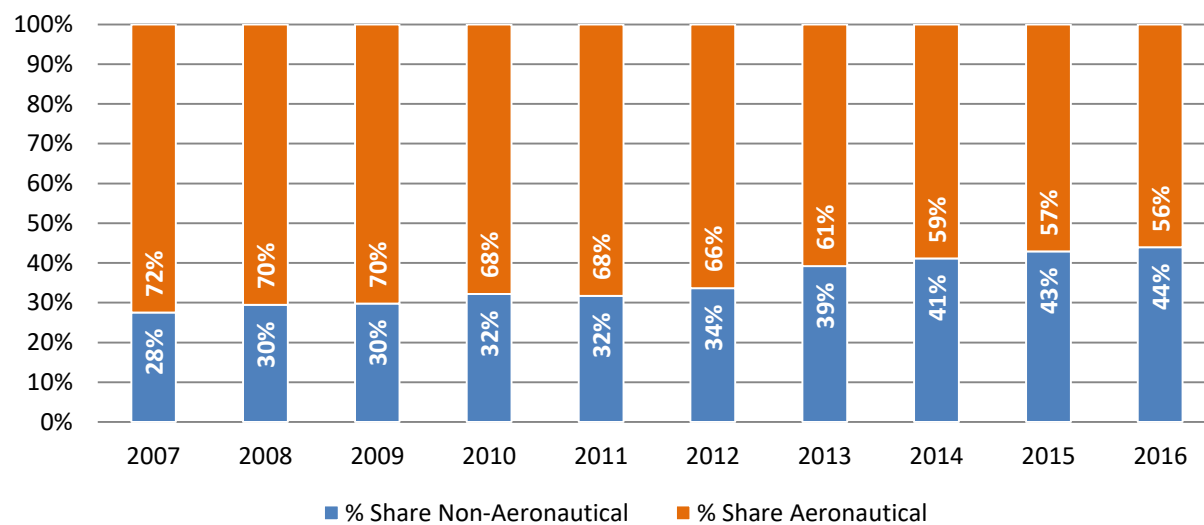


Figure C-3: Toronto (YYZ)



Retail Revenue as a % Share of Non-Aeronautical Revenue

- Over the past 10 years, the share of retail revenue at Los Angeles (LAX) has declined from 31% in 2007 to 21% in 2016.
- Comparatively, the share of retail revenue at New York (JFK) has been consistently in the 11% to 13% range over the past decade.
- At Toronto (YYZ), the share of retail revenue was over 30% 2007 to 2014; however, over the past 2 years has declined to approximately 25%.

Figure C-4: Los Angeles (LAX)

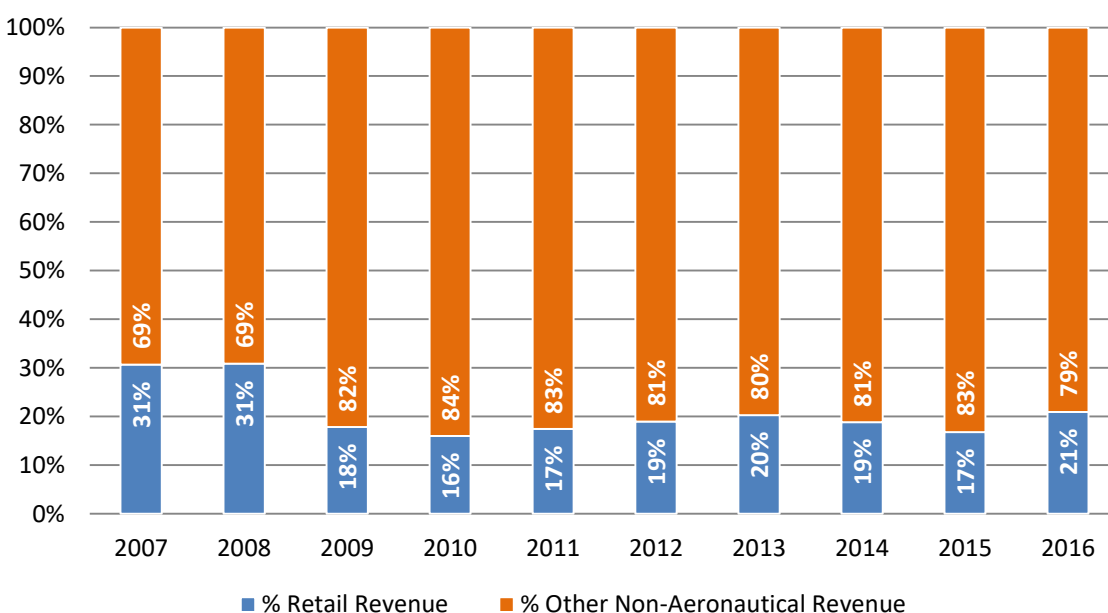


Figure C-5: New York (JFK)

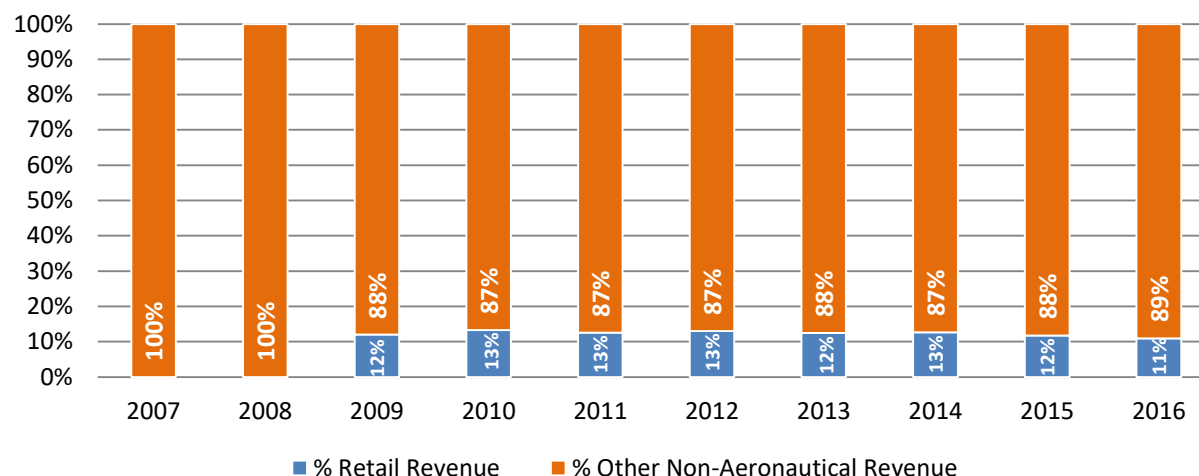
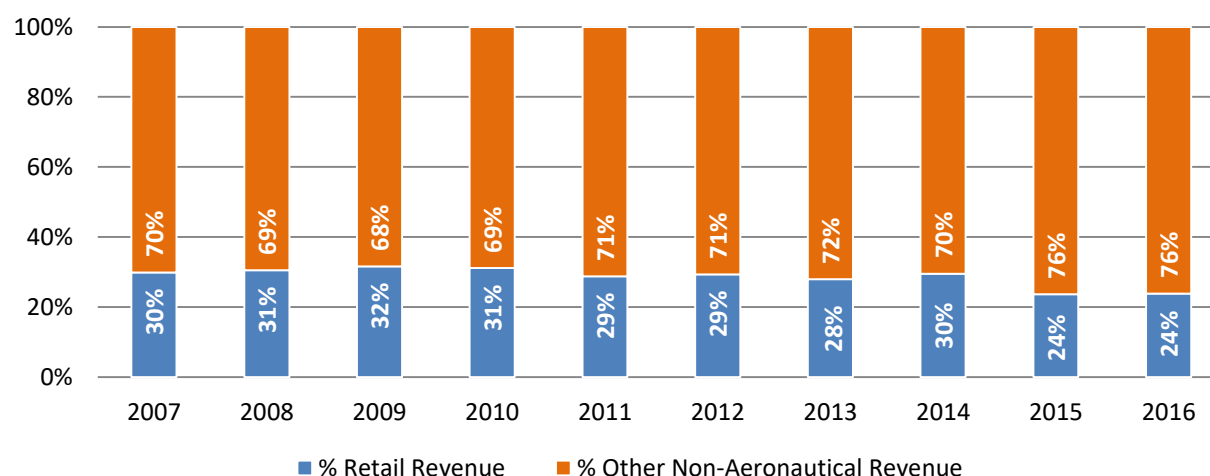


Figure C-6: Toronto (YYZ)



Summary

- New York (JFK) appears to be underperforming in relation to Los Angeles (LAX) and Toronto (YYZ), with respect to the lower share of non-aeronautical revenue.
- While Los Angeles (LAX) and Toronto (YYZ) are comparable, in terms of the relative share of aeronautical versus non-aeronautical revenues, we can see that Toronto (YYZ)'s retail component is much higher. Even though the share of retail has declined in 2015/2016, it still exceeds that of Los Angeles (LAX)
- On an individual airport basis, we can see the differences between airports in the U.S. versus Canada.

InterVISTAS

a company of Royal HaskoningDHV

Prepared by
InterVISTAS Consulting Inc.

Airport Square - Suite 550
1200 West 73rd Avenue
Vancouver, BC
Canada V6P 6G5

Telephone: +1-604-717-1800
Facsimile: +1-604-717-1819

www.intervistas.com

On Behalf of

