

From Across The Border To Across The Pond: Canadian Air Passenger Travel, 2007 To 2016

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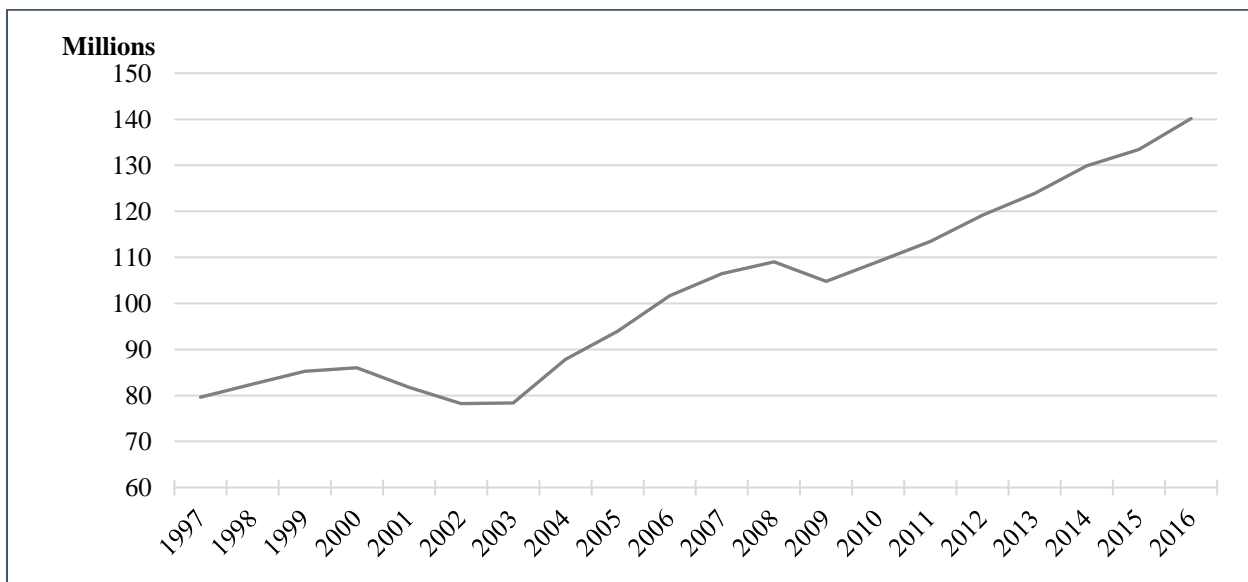
Introduction

With increasing globalization, air transportation is playing a more important role in world economic growth. Canada's air transportation industry is no exception in that it enables Canadians to connect with each other as well as to an increasing number of international destinations. This connectivity is essential to Canada's globally integrated economy.¹ This paper begins with an overview of air passenger trends and the data sources used in the study. Then after examining the growth in Canadian airline passengers from 2007 to 2016, it takes a closer look at Canada's top three airports.

Review

From just over 100 million passengers in 2007, the number of passengers enplaned and deplaned at Canadian airports has climbed steadily, with the exception of the 2009 economic downturn (Figure 1). From 2007 to 2016, the total number of passengers at Canadian airports increased by more than 30% to reach over 140 million. As noted elsewhere, this climb has been uneven, with the growth trend masking variation across travel segments – domestic, trans-border (Canada-U.S.), overseas (other international) – and among airports.² This ten year growth continued an upward trend from a low in 2003 reached in the aftermath of September 11, 2001 (9/11).³

Figure 1 Passengers enplaned and deplaned, Canada, 1997 to 2016



Source: Statistics Canada, Airport Activity Survey.

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Research on growth in Canadian air travel since the 9/11 period found that the growth in passengers carried since then was geographically uneven across airports by size and location.⁴ Moreover, further research found the growth in passengers carried was also uneven with respect to time, leading to even busier peak travel periods.⁵ The steady growth of Canadian air travel can be linked to both the deregulation of the domestic industry and the liberalization of international air service. After 1986, Canada shifted to a commercially based, market-driven system from one based on government ownership and control. There was some turbulence en route as air carriers exercised new freedoms (i.e. where to fly, which aircraft to use, and what fares to set) that resulted in some service cuts and some price hikes in regional markets along with bankruptcies and consolidations.

Canadian airlines eventually mimicked American business models and realized significant efficiencies by implementing hub-and-spoke networks and unbundling services.⁶ International air service liberalization began with the so-called “Open Skies” or the 1995 Canada–U.S. air services agreement, followed by agreements with the United Kingdom and other key partners. In 2006, the government adopted the Blue Sky policy, which aims for further liberalization and reciprocal Open Skies-type agreements. The following analysis will examine trends and patterns in Canadian air passenger traffic over the 10 year period from 2007 to 2016, addressing how air passenger traffic has changed in terms of travel sectors, airport activity and travel destinations.

Data and Methods

Our study uses passengers carried to explore patterns across sectors and airports. Data on air passenger traffic are collected by Statistics Canada’s Airport Activity Survey (AAS) which provides the number of passengers enplaned and deplaned at Canadian airports.⁷ The data presented are broken down into three sectors – domestic, trans-border and overseas – and assigned to the categories for each flight segment according to the next stop (for departures) and the last stop (for arrivals) of the aircraft.⁸

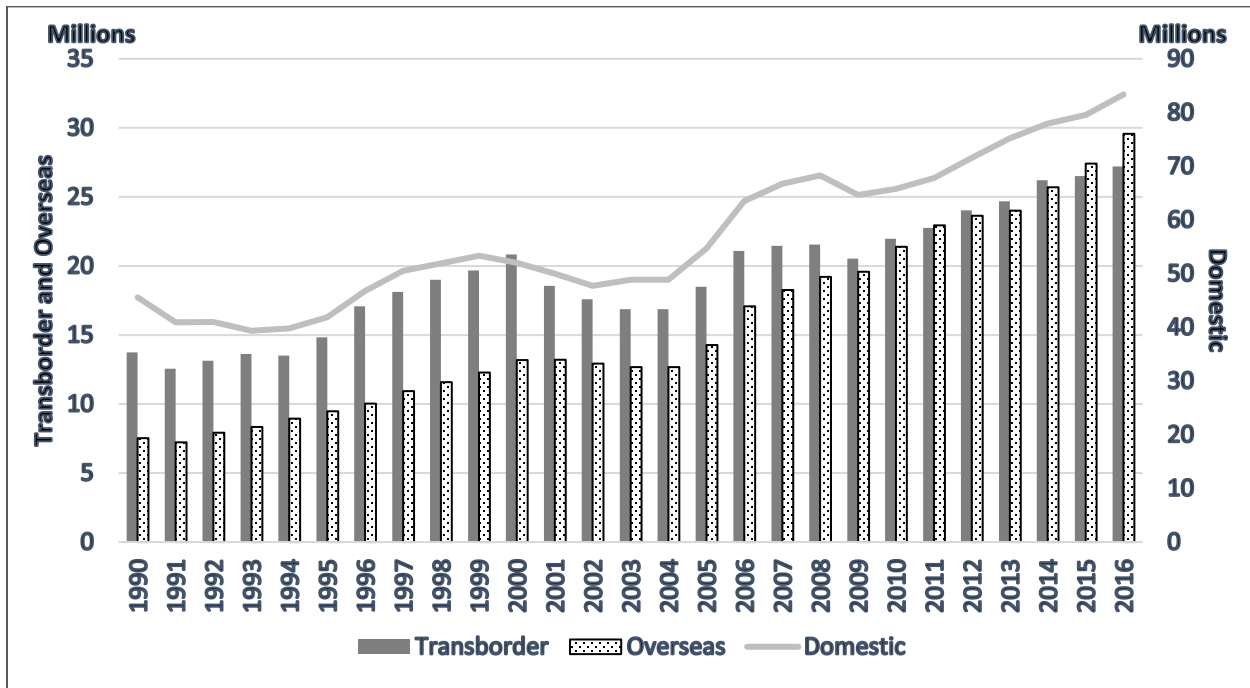
In order to capture trends in air passenger traffic, the data was first grouped by sector, both at the national and the airport level. An initial analysis revealed that Canada’s top 3 airports accounted for an average of 55% of all passenger traffic in Canada over the 10 year period. These 3 airports were selected for further study, namely: Toronto – Lester B. Pearson International; Vancouver International; and Montréal – Pierre Elliot Trudeau International.

Findings

Overseas passengers outnumber trans-border

The face of air passenger traffic has changed considerably since the early 1990’s. Although domestic traffic continues to be largest in proportion, the trend has changed when it comes to the trans-border and overseas sectors. Historically, the trans-border sector outnumbered passengers in the overseas sector, but for the first time in 2011 and again more recently in 2015 and 2016, this has reversed (Figure 2). By 2016, both the domestic and trans-border sectors had a lower proportion of total passenger traffic while the share of the overseas sector increased by 4 percentage points to represent 1 out of every 5 passengers travelling by air (Figure 3).

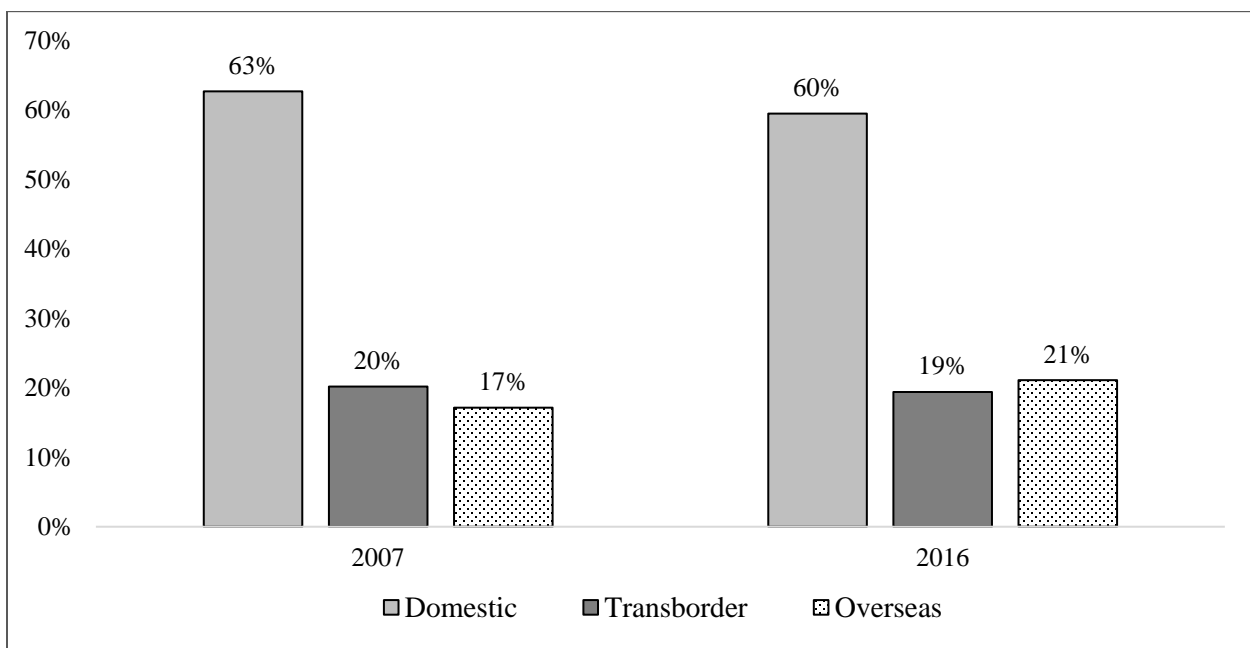
Figure 2 Passengers carried by travel segment, Canada, 1990 to 2016



Source: Statistics Canada, Airport Activity Survey.

Again, while all three travel segments contributed to the absolute growth in the total number of passengers enplaned and deplaned in Canada since 2007, overseas traffic grew much more quickly, increasing by 62%, by 2016, more than double the growth rate of the domestic (25%) and trans-border (27%) sectors.

Figure 3 Share of passengers by travel segment, Canada, 2007 and 2016



Source: Statistics Canada, Airport Activity Survey.

Three largest airports see growth in overseas passengers

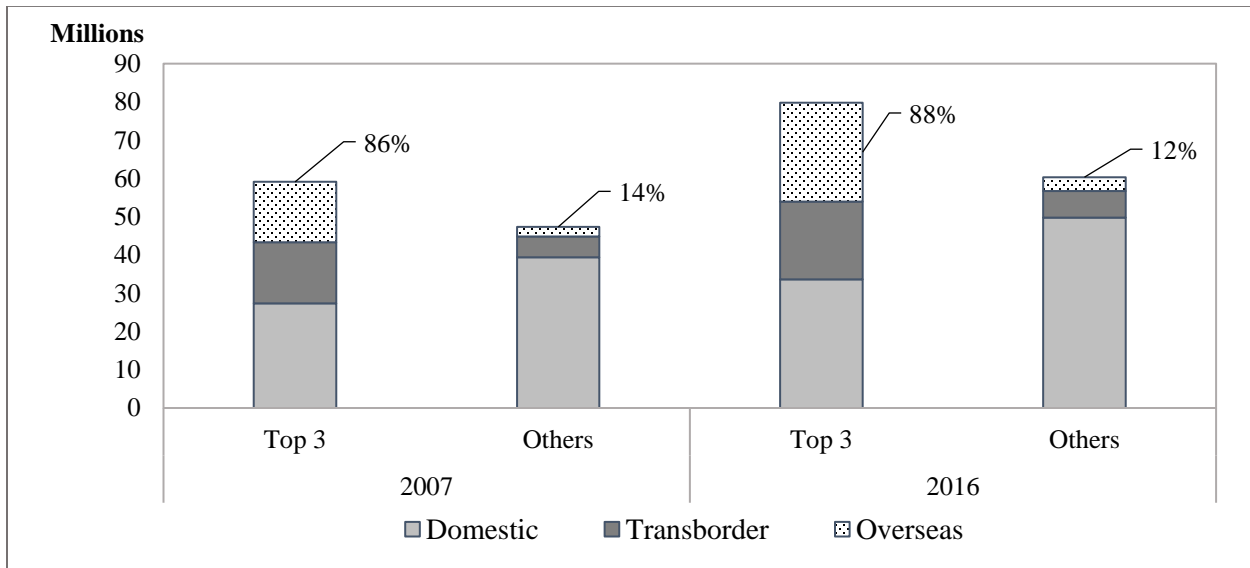
Not all Canadian airports have shared equally in the increasing total number of passengers. As found previously⁹, the top 8 airports, which accounted for an average of 80% of total passengers enplaned in deplaned over the analysis period, captured most (97%) of the most lucrative and fastest growing overseas travel segment.

The evolving nature of Canadian air passenger travel becomes even more apparent when only the top 3 airports are considered – Toronto’s Pearson International (Pearson), Montréal’s Pierre Elliot Trudeau International (Trudeau) and Vancouver International (Vancouver). These airports accounted for an average of 55% of all passenger traffic in Canada from 2007 to 2016; however they control an increasingly disproportionate share of the international market, handling 88% of all overseas traffic by 2016 (Figure 4).

In a deregulated market, existing carriers must compete on price and begin to adopt a form of the hub and spoke to increase load factors and reduce costs.¹⁰ Since the hub is always located at a carrier’s largest volume origin-destination node in the network, this tends to reinforce relative differences; some airports become greatly used (e.g. Pearson in Toronto) while neighbouring airports may remain underutilized (e.g. Munro in Hamilton). Internationally, carriers form partnerships or strategic alliances.

This creates a global network hierarchy – local, regional, national, continental and international – in which airports will benefit from their centrality and intermediacy. Centrality affects airport size by its traffic-generating ability. Pearson International is located in the largest traffic generating area – The Greater Toronto Area – and accounted for 31% of total passengers during 2016. Intermediacy reflects the specific context of networks and technological change.¹¹ Today, Vancouver International, well positioned as a gateway to Asia Pacific accounted for 15% of total passengers in 2016.

Figure 4 Passengers carried by travel segment and airport size, Canada, 2007 and 2016



Source: Statistics Canada, Airport Activity Survey.

Pearson

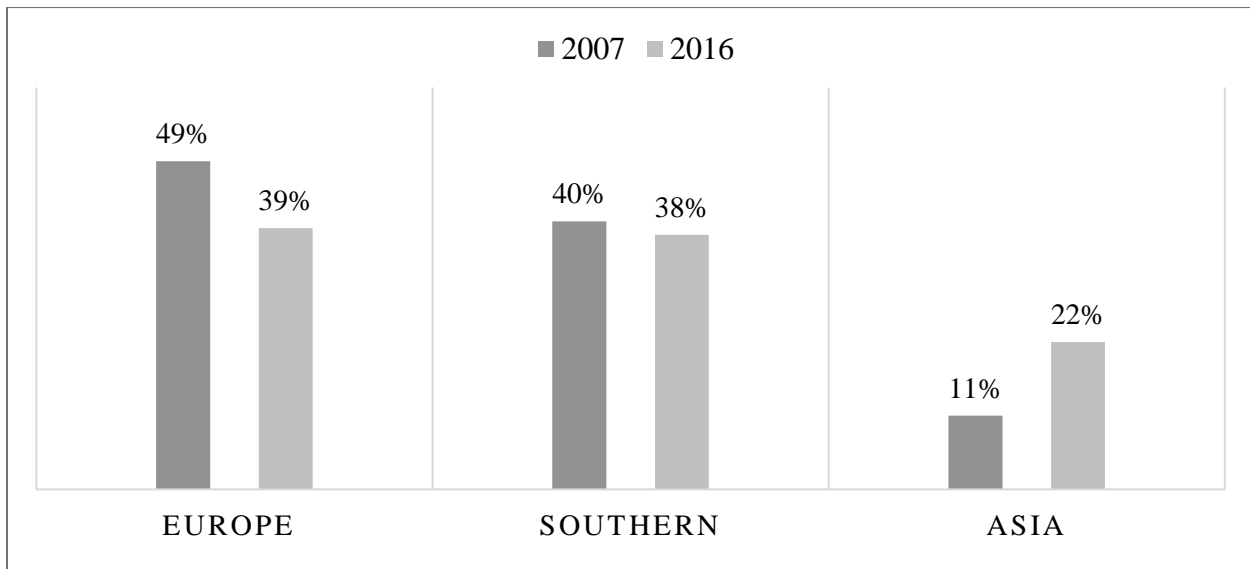
As Canada’s largest and busiest airport, Pearson was a global hub for over 42 million passengers in 2016, up 42% from 2007, accounting for about 1 out of every 2 people travelling internationally to or from Canada. Its proportion of overseas traffic increased from 26% in 2007 to 34% in 2016. Pearson has continued to see more international than trans-border passengers since 2009, with overseas passenger

volumes increasing from 7.9 million in 2007 to 14.5 million in 2016. This represents an 83% increase, the largest relative growth rate of overseas passengers among the top 3 airports.

Pearson is positioning itself as an international hub airport, vying to join the ranks of Kennedy in New York and Los Angeles International. For instance, Air Canada recently opened a new lounge at Pearson that will be targeting the growing international business passenger market.¹² And Air Canada’s delivery of Boeing 787 *Dreamliners*, a new generation of more fuel-efficient aircraft, allow the carrier to pursue new international growth opportunities in Asia directly from its hub at Pearson.¹³

The increase in the number of overseas passengers at Toronto has ultimately been fuelled by the change in market demand for select global destinations¹⁴. In 2007, 49% of international passenger traffic was with Europe, 40% with the Southern region and 11% with Asia (Figure 5). By 2016, Europe represented 39%, the Southern region 38% and Asia 22%. Although European destinations dominated in 2007, there was an almost equal proportion of passengers from European and Southern regions in 2016, while Asia doubled its relative share as a Toronto-Pearson destination since 2007.

Figure 5 Global Market Proportions, Toronto International, 2007 and 2016



Source: Statistics Canada, Airport Activity Survey.

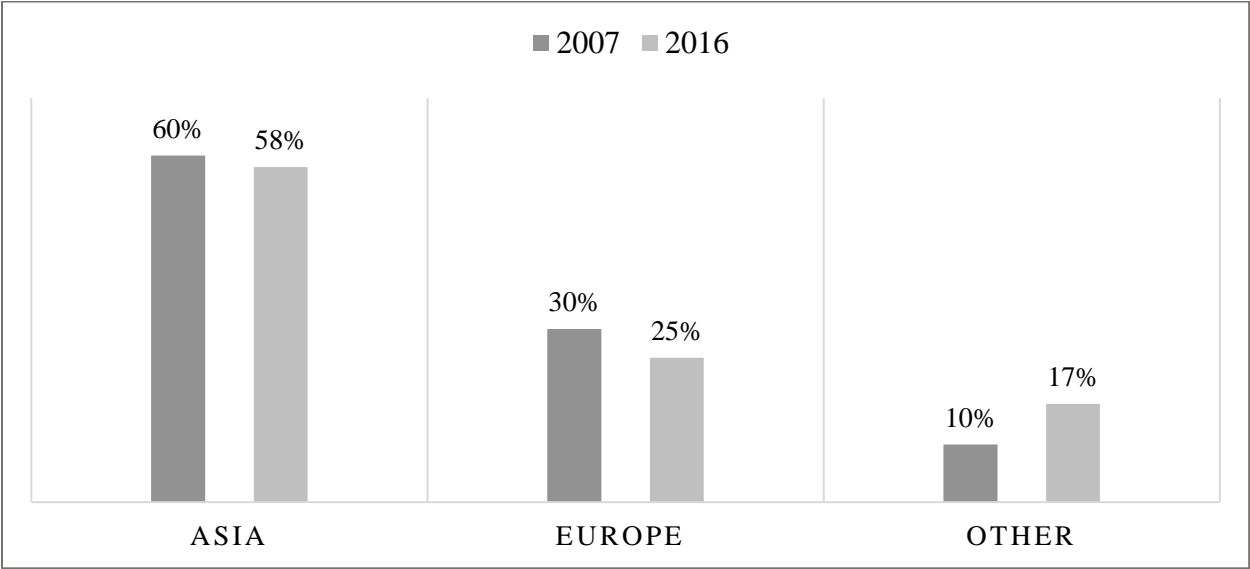
Vancouver

The second largest airport in Canada, Vancouver International, served a total of 21.3 million passengers in 2016, a 25% increase from 17.1 million in 2007. There has been a sharp rise in recent international traffic, while trans-border traffic has declined proportionately. Of the top 3 airports, Vancouver continues to be the Canadian airport with the lowest proportion of international travellers at 25% in 2016, up from 22% in 2007. In comparison, trans-border passengers held the lowest proportion of airport traffic at 24%, down slightly from 26% in 2007.

Vancouver had more trans-border passengers than overseas passengers until 2016. International traffic has grown from 3.8 million in 2007 to 5.4 million in 2016, an increase of 42%; trans-border traffic grew less quickly at 18%. *Flight Plan 2037* is a roadmap detailing the airport’s strategy to becoming a world class, sustainable hub connecting Asia and the Americas.¹⁵ The \$5.6 billion plan includes expanded terminals, new taxiways, a geoexchange system and upgraded roads and bridges, all to help Vancouver support an estimated 35 million passengers expected through Vancouver annually by 2037.

The number of overseas passengers at Vancouver has ultimately been fuelled by the change in market demand for travel between Canada and select global destinations (Figure 6). In 2007, 60% of international passenger traffic was from Asia, 30% from the Europe and 10% from ‘Other’ areas (including Pacific and Southern regions). By 2016, Asia represented 58%, Europe 25% and ‘Other’ areas were 17%. Although Asia continues to have the largest proportion of passengers, the largest growth in overseas passengers was to “Other” destinations.

Figure 6 Global Market Proportions, Vancouver International, 2007 and 2016



Source: Statistics Canada, Airport Activity Survey.

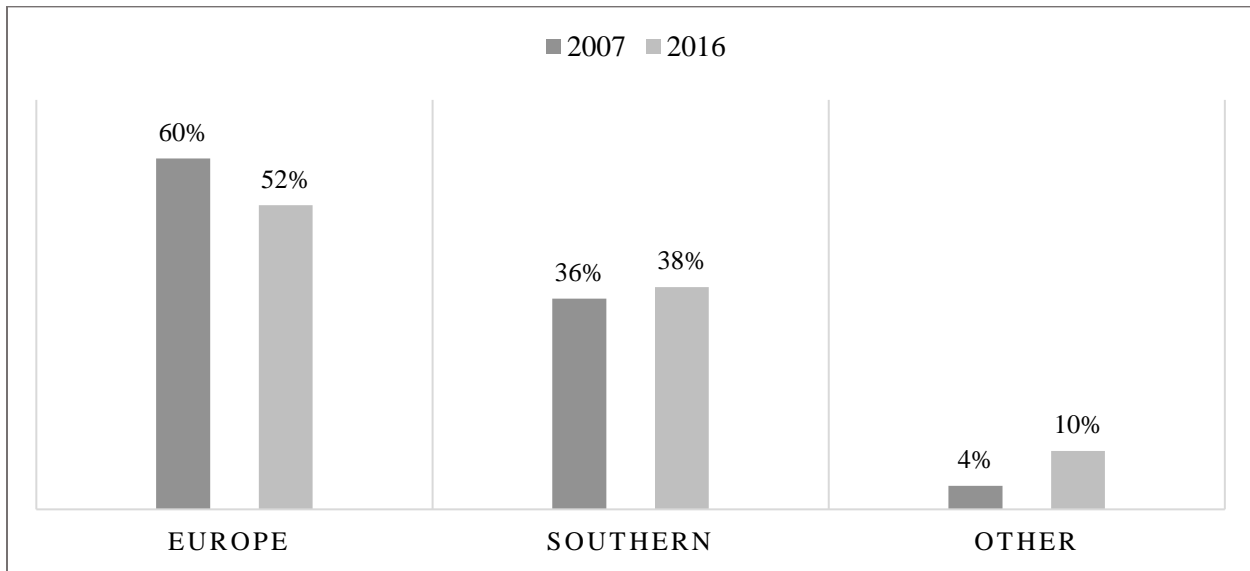
Trudeau

Canada’s third largest airport - Trudeau in Montréal - served a total of 15.7 million passengers in 2016, an 11% increase from 2007. Recently, there has been a sharp rise in international traffic, while trans-border traffic has slowed. Trudeau continues to be the Canadian airport with the highest proportion of international travellers, about 39% of total airport traffic, up from 34% in 2007. In comparison, trans-border travellers were 23% of airport traffic, down from 26% in 2007. Trudeau has always catered to more international travel, which grew by 49% from 2007 to 2016.

There are several factors that have led to this growth. For instance, the airport has recently welcomed three new carriers – Icelandair as well as low cost carriers Wow and Tunisair – expanding on their already broad list of international destinations¹⁶. In addition, existing carriers have been promoting connections to new international destinations, such as Air Canada’s new nonstop daily flight between Montréal and Shanghai; now the longest flight departing from Trudeau Airport, clocking in at over 14 hours. Finally, several carriers have increased frequency on existing routes to China, Mexico and many European destinations.

This increase in the number of overseas passengers at Montréal-Trudeau has ultimately been driven by the change in market demand between Canada and select global destinations (Figure 7). In 2007, 60% of international passenger traffic was from Europe, 36% was from the Southern region and 4% was from ‘Other’ regions (including Africa and Asia). By 2016, Europe represented 52%, the Southern region 38% and ‘Other’ regions were 10%. Although Europe continues to account for the most international passengers, the largest growth in overseas destinations for Trudeau since 2007 falls under “Other”.

Figure 7 Global Market Proportions, Montréal International, 2007 and 2016



Source: Statistics Canada, Airport Activity Survey.

Summary

This study examines trends in the Canadian passenger airline industry over the last decade when the number of air passengers enplaned and deplaned at Canadian airports has been steadily increasing. However, this increase masks variations among travel segments, with the overseas sector now growing significantly faster than the domestic and trans-border sectors. Change among sectors has been expressed differently among Canadian airports, with a large and disproportionate share of overseas traffic flowing through Canada's three largest airports. This reflects an increasing globalization of transportation services in general, a prerequisite for enhanced global trade. The growth in airline activity has spawned an integrated hierarchy of hub and spoke networks at the local, regional, national and international levels. Within this hierarchy, certain airports appear to be emerging as international gateways, including Canada's three largest airports.

Acknowledgement

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Endnotes

¹Canada's Airports: Enabling Connectivity, Growth and Productivity for Canada, 2018 Federal Budget Submission, the House of Commons Standing Committee on Finance (accessed October 9, 2017): http://www.cacairports.ca/sites/default/files/2018%20pre-budget%20submission%20Final_0.docx#overlay-context=content/submissions-papers.

²Travel Segments include: Domestic traffic between two airports in Canada; Trans-border traffic between an airport in the United States (including Alaska, Hawaii and Puerto Rico) and an airport in Canada; and Overseas traffic between an airport in a foreign country (excluding the U.S.) and an airport in Canada.

³ It was asserted that the slowdown in air travel attributed to the events of 9/11 only served to exacerbate an already difficult situation of declining domestic travel stemming from a worsening economy Masse, R. (2002). How much did the airline industry recover since September 11, 2001? Aviation Service Bulletin (Special Issue, November). Statistics Canada: 51-004.

⁴ Bova, T., Cromwell, G. and McKeown, L. (2015). A steady but uneven climb: Air passengers in Canada since 9/11. Canadian Transportation Research Forum, Proceedings, p. 32-40. Montreal (June).

⁵ Bova, T., Cromwell, G. and McKeown, L. (2016). Come fly with me: Seasonal and temporal patterns in air travel. Canadian Transportation Research Forum, Proceedings, p. 298-304. Toronto (May).

⁶ Emerson, D. (2015). Canada Transportation Act Review, Pathways: Connecting Canada's Transportation System to the World, 2015, pg. 186, online: http://www.tc.gc.ca/eng/ctareview2014/CTAR_Vol1_EN.pdf.

⁷ The AAS surveys all air carriers operating in Canada including: (i) Large scheduled carriers providing domestic and international services operated by Level I Canadian carriers, as well as from other Canadian carriers and foreign carriers operating scheduled services within, into or out of Canada; (ii) Small scheduled carriers including scheduled passenger services operated by Canadian carriers (level II, III, and IV); and (iii) both domestic and foreign Carriers offering domestic, trans-border or international commercial charter services.

⁸ For example, consider a flight with a routing of Vancouver-Edmonton-Amsterdam. The departure of the flight from Vancouver would be considered domestic, as would the arrival at Edmonton. The departure of the flight from Edmonton for Amsterdam would be considered as overseas since the next stop of the aircraft is a foreign point.

⁹ Bova, Cromwell & McKeown (2015).

¹⁰ Peter, J. and McKeown, L. (2012). Trends in the Canadian airline industry: A statistical review. Paper presented at the North American Regional Science Association International meetings, Ottawa (November).

¹¹ Fleming, D. and Y. Hayuth (1994). Spatial characteristics of transportation hubs: Centrality and intermediacy, Journal of Transportation Geography 2(I), 3-8. For example, into the 1960's Gander International Airport was an important refuelling location for trans-Atlantic flights with aircrafts unable to fly directly to Europe.

¹² Air Canada looks to international business travellers to boost profits (Globe and Mail accessed November 28, 2017): [ps://www.theglobeandmail.com/report-on-business/air-canada-looks-to-international-business-travellers-to-boostprofits/article37117575/](https://www.theglobeandmail.com/report-on-business/air-canada-looks-to-international-business-travellers-to-boostprofits/article37117575/).

¹³ Fleet renewal has also helped to reduce fuel consumption by Canada's level I-II carriers to an all-time low of 2,576 litres per hour flown in 2015, Olsheskie, M., Larmour, R. and McKeown, L. (*forthcoming*). Canadian Transportation Research Forum, Proceedings. Ottawa, June 2018.

¹⁴ The world was divided into five regions: 1. Africa; 2. Asia (including that part of Turkey located in Europe, as well as Sumatra, Java, Borneo, New Guinea, the Philippine Islands and other islands adjacent thereto); 3. Europe (including Iceland, Greenland and the Azores); 4. Pacific (composed of Australia, New Zealand, Melanesia, Micronesia and Polynesia); 5. Southern (composed of Bermuda, the Bahamas, the Caribbean Islands - except Puerto Rico and the United States Virgin Islands - Mexico, Central America and South America).

¹⁵ It provides an overarching blueprint for the future with Capital, Terminal, and Financial Plans as well as the Vancouver 2037 Master Plan. Vancouver International Airport (accessed October 16, 2017): http://www.yvr.ca/-/media/yvr/documents/flight-plan-2037/2016_01_17_yvr-2037-flight-plan-master-plan-news-release_final.pdf?la=en.

¹⁶ Including for example, Iceland, Tunis and some European cities. Aéroports de Montréal (accessed October 16, 2017): <http://www.admtl.com/en/node/14911>.