Deloitte.



Avoiding a tailspinThe imperative for reform in the Canadian aviation sector

Introduction	1
An economic pillar at risk	2
The pandemic has permanently changed aviation	5
Reforming to recover	7
Action the government can take	9
Action the aviation sector can take	10
Aviation reform needs to take off	13

Despite the gradual return of some grounded fleets, airports remain highly underutilized, and thousands of Canadians whose jobs depend on aviation wonder whether they'll have a job to return to when the COVID-19 pandemic is finally over.

While vaccination programs launched in Canada and many other countries offer a tantalizing glimpse of a return to more normal times, the aviation sector's future remains more uncertain than it has in decades.

It may take up to four to five years for air traffic in North America to return to its pre-pandemic levels.¹ But for Canada's economy to fully recover and thrive, especially the business and tourism sectors, aviation must remain competitive and provide quality services for reasonable prices. This will require policymakers and regulators to seriously consider the industry players' own proposed changes and pursue an aggressive program of regulatory reforms that support the recovery of Canada's aviation sector. At a minimum, its global competitiveness must not be impeded.

The economic toll of the pandemic may have changed the industry permanently. In Europe and the United States, governments chose to help their aviation sectors through direct financial relief. Some bailout packages were designed with large equity positions, others primarily around secured debt. Canada took a sector-agnostic approach through its Large Employer Emergency Financing Facility (LEEFF), providing bridge liquidity until markets could price risk. While different financial measures have been executed, the pre-pandemic trend of foreign carriers eroding Canadian carriers' international market share² has accelerated, as US airlines have been moving in to launch new Canada-US routes³. Reform will be required to give the aviation sector the freedom and flexibility it needs to overcome current challenges, reinvent itself, and remain competitive. Meaningful conversation among aviation stakeholders must be followed by swift, decisive action to put the industry—and Canada's economy on course for renewed prosperity.

An economic pillar at risk

Airlines, airports, air navigation service providers, suppliers, and partners in manufacturing, services, tourism, and other industries—the aviation sector is a key component of Canada's economy.

It connects Canadian businesses to their markets and suppliers, but our expansive geography means that we rely on connectivity by air more than most other countries. And it's the only way some of Canada's more remote communities can reach the rest of the continent, let alone the rest of the world. When the aviation sector struggles, the impact can be felt in communities and industries in every province and territory.

The International Air Transport Association (IATA) has estimated that Canada's air transport sector is directly or indirectly responsible for approximately 633,000 jobs across the country. This figure includes 241,000 jobs with airlines themselves; airports and their onsite enterprises (e.g., retailers, restaurants, financial services); and air traffic controllers. Its supply chain accounts for a further 146,000 jobs, while 55,000 jobs in Canada's consumer goods and services sector are indirectly supported through aviation employees' own spending. In addition,

the IATA estimates that foreign tourists support a further 190,000 jobs across the country.⁴

These figures add up to the fact that Canada's aviation sector represents a significant component of the country's GDP. Overall, IATA estimates that aviation, including spending by foreign tourists, contributes \$63.6 billion—or 3.2%—to Canada's GDP, with \$48 billion generated by the industry and its supply chain alone.^{5,6}

The economic benefits generated by the aviation sector, and the industry's overall health, are ultimately driven by business and consumer demand, of course. As that demand returns, it will be vital that a competitive, robust aviation sector is ready to meet it, with competitive prices and service quality. However, should the Canadian aviation sector continue to contract—whether due to business failures, a lack of financing, or mergers—it may lead to fewer routes, fewer flights, and potentially higher prices.

With fewer direct services to desired destinations and higher fares, industries that rely on Canada's aviation sector could find themselves at a competitive disadvantage. A diminishing industry would reduce demand for more than just aircraft manufacturing, parts, maintenance services, and pilot training. It would limit career opportunities for Canadians pursuing education in STEM (science, technology, engineering, and math). Tourism organizations, event planners, travel agencies, retailers, caterers, taxis, and other mobility services would all feel the impact of a less robust and less competitive aviation sector. In addition, Canadian e-commerce would run up against higher shipping costs and potentially higher prices for consumers, as airlines' reduced capacity and smaller footprint would mean fewer planes carrying goods for same-day or next-day delivery. In 2020, carriers increased their freighter fleet sizes and daily aircraft utilization, driving a 20.6% year-over-year increase in available cargo tonne kilometres, yet they were still unable to compensate for the 53.1% year-over-year drop in passenger aircraft belly capacity.7 All these potential factors would hinder Canada's efforts to restart its economy post-pandemic and compromise the collective drive to a more prosperous future.





The pandemic has permanently changed aviation

The conventional aviation business models have been thrown into disarray since early 2020.

Demand for passenger services had collapsed in the face of ongoing and frequently revised travel restrictions and quarantine measures, as countries open and close their borders depending on trends in new cases. According to the IATA, total demand in January 2021, measured in revenue passenger kilometres, was down 72% compared to January 2019. North American carriers' January 2021 traffic fell 79% compared to the same period in 2019; seat capacity dropped by 60.5%, while the region's load factor fell to 42.9%.8

On the contrary and led by growing vaccination rates and domestic market development, demand improved to 56.0% through August 2021.

The speed at which pandemic-related drivers impact air travel demand make it difficult for airlines and airports to efficiently organize capacity.

Looking ahead, travel restrictions may continue to ease, but there are risks that could lead to further sinusoidal RPK recovery notably from slowing vaccination rates and economic activity.⁹

The suspension and slow resumption of international flights has had a particularly adverse impact on Canadian carriers, as the domestic market alone is not enough to sustain their businesses in their current form. From March to November 2020, Air Canada was forced to cut 20,000 jobs, more than offsetting the 10,000 jobs the

company had created over the previous five years. The pandemic and its related travel restrictions have reversed 10 years of profitable network expansion by the airline. Similarly, WestJet has reduced staff from 14,000 before the pandemic to less than 5,000 by earlier this year.

In response to their experience during the pandemic, many organizations that transitioned to remote work and collaboration found it worked well. If this shift becomes permanent, business travel is likely to remain low. Deloitte's own analysis suggests signs of recovery toward 2024. Short-haul travel will lead the recovery in passenger air travel over the next five years, due to the demand for leisure travel, faster easing of travel restrictions within regions, and perceived health concerns related to longer-distance travel. Challenges to long-haul travel, like slower easing of travel restrictions between regions and the greater dependence on business travel, are expected to remain in the near term.¹²

Rapid growth in online shopping is also driving lasting change. According to a Deloitte survey, 47% of consumers in Canada said they've been shopping online more often as the result of the pandemic.¹³ This surge has created a huge demand that's not easing up: the air freight sector in Canada is projected to reach \$2.9 billion by 2025,^{14,15} and IATA reported that air cargo traffic returned to pre-pandemic levels in January 2021, reaching over +8.8% and

+7.7% industry-wide cargo tonne-kilometres (CTKs) in July 2021 and August 2021 respectively vs August 2019.¹⁶ However, a lack of passenger aircraft belly capacity will hinder further growth.¹⁷ This trend has prompted airlines to convert several of their passenger aircraft to cargo freighters as a means to generate revenue amid the steep drop in passenger travel.

For example, Air Canada has been operating seven of its passenger aircraft seat-free for cargo shipments since the spring of 2020 and subsequently unveiled plans to convert its B767-300ER aircraft into permanent freighters as part of its long-term strategy to expand its dedicated freighter business.18 In June 2021, the airline announced the first routes for these new freighters, scheduled to enter service in the fall.¹⁹ June 2021 also saw WestJet announce the launch of its own dedicated cargo service, using converted 737-800s; the first of the aircraft is expected to be in service by the second quarter of 2022.²⁰ While moving into air freight may not offset the collapse of scheduled passenger traffic, it is still preferable to leaving the aircraft parked.

The measures introduced to protect the health and safety of aviation workers and passengers alike are also likely to become a permanent feature of air transport. Redesigned health and security protocols—and their impact on operating costs, passenger flow, and more—are here to stay. In October 2020, Airports Council International and the IATA issued a joint call for a globally consistent

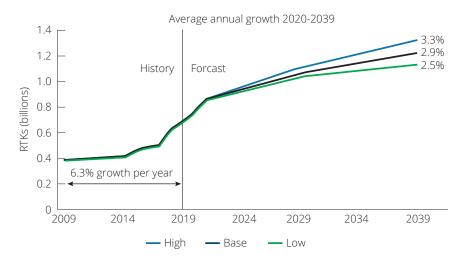
approach to COVID-19 testing, asserting this consistency would go a long way to restoring passengers' confidence in air travel and limit the need for border closures and quarantines—measures that impede aviation's ability to recover.²¹ Policymakers should ensure the public health processes and practices followed by screeners, border management agencies, and others across the travel supply chain are aligned as much as possible—domestically and internationally—so they don't disrupt air passengers' experiences unnecessarily.

Aviation market participants have already invested in biometrics and other technologies to protect people while continuing to deliver a quality customer and employee experience and supporting the business itself. American Airlines

passengers at Dallas Fort Worth can use a digital ID stored on a mobile device to check their bags and reduce contact with airport staff. Facial-recognition passenger screening is expected to be in place for Vistara and IndiGo airlines at Varanasi Airport in India, replacing the need to exchange physical documents from the curb to the boarding gate.²² Lufthansa has been rolling out biometric boarding across its services in the United States for years and has expanded the process to Germany.²³ Singapore Airlines, Etihad Airways, Emirates, Qatar Airways, Copa Airlines, and Air New Zealand, to name a few, have all been testing the IATA mobile app that allows passengers to securely store and share COVID-19 test and vaccination results.²⁴ Many airports, including London Gatwick, allow travellers to prebook and prepay for their parking.25

Airlines and other aviation businesses can't rely on incremental refinements to pre-COVID-19 commercial strategies. They can no longer turn to run rates and pre-pandemic passenger growth projections for their financial planning efforts. Even customary revenue sources, such as airport improvement fees, are unlikely to generate the same revenue levels as in the past. The aviation sector finds itself in a world that is more volatile, uncertain, complex, and ambiguous than ever before. Players across the industry will need to adjust their business models and become more efficient, responsive, and agile if they are to regain their bearings and compete effectively.

Canada domestic air cargo traffic will grow 2.9% per year



Canada's domestic cargo market accounts for a small proportion of the total North America air cargo market, but traffic grew significantly in 2018 and 2019, at 23.7% and 10.8%, respectively, largely driven by e-commerce. Looking ahead, Canada's domestic market is projected to grow at an average annual rate of 4.4% (vs the US's 3.9%) during the next 10 years as e-commerce market share grows and providers continue to build networks and fleets. Growth is expected to level out in the second 10 years, for 20-year growth of 2.9% (vs the US's 2.7%) over the period from 2020 to 2039.

Source: Boeing World Air Cargo Forecast 2020-2039 https://www.boeing.com/resources/boeingdotcom/market/assets/downloads/2020_WACF_PDF_Download.pdf

Reforming to recover

Regulatory reform has been pivotal to the growth and success of the Canadian aviation industry over the past 40 years.

The progressive deregulation and commercialization of the sector, from airfare deregulation to the privatization of Air Canada, enabled carriers to realize tremendous productivity gains and volume growth. The increased competition has given passengers access to more direct routes and stopped airfares from rising too drastically. The partial commercialization of Canadian airports has led to a network of high-quality, safe, comfortable, well-managed, and well-capitalized not-for-profit airports. Between 2009 and 2017, the productivity of major Canadian carriers rose 2% per year, well above the economy-wide labour productivity growth rate. During the same period, passenger volumes rose 5.9% per year and passenger kilometres grew 7% each year.²⁶

The pandemic has completely upended the sector's future. In exchange for refunding customers for flights cancelled due to COVID-19, restoring most suspended regional routes, temporarily suspending share buybacks and dividend payments, and capping executive compensation, the federal government provided Air Canada with up to \$5.9 billion in financial support.²⁷ This was an important first step to fostering recovery. Other Canadian carriers have also received federal financial support, including Air Transat (\$700 million),28 Porter Airlines (\$135 million),²⁹ and Sunwing Airlines (\$375 million);³⁰ at the time of writing, discussions between the federal government and Westlet are ongoing. The government must continue its critical

dialogue with Canadian carriers to ensure they have a recovery plan and a timeline to ensure they're ready to respond quickly and nimbly as passenger demand recovers.

Any new government initiatives need to give the aviation sector the freedom and flexibility needed to overcome today's challenges, reinvent itself to meet evolving expectations as passenger demand recovers and cargo demand continues to grow. These actions should encourage operational innovations. They must address the regulatory barriers that impede commercial operations, hamper strong service levels, and make Canadian aviation less price-competitive on the world stage.

Meaningful reforms must also be made to Canada's airport industry. In other international markets, airports benefit from a higher level of private sector participation. In particular, the government needs to revisit the recommendations outlined in the 2015 Canada Transportation Act Review report, Pathways: Connecting Canada's Transportation System to the World. These recommendations included measures such as divesting smaller federally owned airports in consultation with provinces, municipalities, and Indigenous peoples. The report also suggests more open international air services agreements, increasing foreign ownership limits for air carriers, and supporting the development of global air hubs to position Canada's air transport sector to compete internationally.31 •>

Nav Canada, the country's air navigation service provider, also requires government attention. Since its privatization more than 20 years ago, Nav Canada has improved aviation safety and increased efficiency and productivity while relying on a user-pay system for virtually all its revenue. However, the global crisis has exposed the key weakness in its business model: under a user-pay system, no passengers means no revenue. As air travel recovers, Nav Canada's reliance on the user-pay model alone may not provide sufficient revenue. Raising fees, as the organization did in late 2020, may not be a sustainable approach over the long term: these increases will be passed on to passengers, potentially impacting demand for air travel.

Engaging with the wider aviation ecosystem could create opportunities that help mitigate risk, control costs, and avoid further fee increases by optimizing how services are provisioned. For example, Nav Canada and other aviation ecosystem players (e.g., airports, airlines) could co-invest in

an enhanced data exchange. This could not only resolve data-management inefficiencies across the ecosystem, but also improve information-sharing among participants, which would in turn minimize the impact of disruptions and ultimately contribute to a better passenger experience.

Finally, consideration should be given to how Canada's aviation network integrates with the broader transportation network. Could we find a better balance and integration of services between air and rail that the country should strive for? For short-haul and medium-haul trips, a renewed focus on passenger rail may be more cost-effective and efficient while supporting the government's agenda on climate change. The French government recently voted to suspend domestic flights for routes that can be travelled by direct train in under 2.5 hours, 32 and KLM has teamed up with NS Dutch Railways and Franco-Belgian train operator Thalys to offer a high-speed rail replacement for KLM's popular Brussels-Schiphol airports route.33

Action the government can take

Aviation players have clamoured for the federal government to commit to a comprehensive recovery plan that encompasses the entire aviation industry. They know what it needs to chart a path forward: clear direction on health protocols, border restrictions, and quarantine rules—and, crucially, a timeline that the industry can work toward.

Federal action on such a comprehensive recovery plan was more than welcome. However, the federal government shouldn't overlook opportunities to introduce substantive, meaningful reform to Canada's aviation industry. These potential reforms include:

Open investment

The government must introduce and adapt policies and regulations in order to attract more private investment into Canada's aviation sector, which is essential to driving innovation in both technology and business models. This means removing barriers to foreign investment and opening parts of the aviation sector that have been closed to this type of investment and commercial know-how, such as airports.

Clarify what net-zero carbon emission means to aviation

The government's February 2021 launch of the Net-Zero Advisory Committee, which will advise on the best pathways to achieve net-zero carbon emissions by 2050,34 is an important development. The aviation industry will require more clarity and direction on targets, policy frameworks, timeframes, and their application to each segment of the sector. This will provide the basis for quantifying the economic impact of a commitment to net-zero emissions on the aviation sector. The government should seek input from all corners of the aviation sector to identify the market-based policy measures, innovations, and investments needed to reduce emissions and establish

a sustainable, low-carbon future for aviation. The UK industry body Sustainable Aviation, for instance, has published a roadmap to net-zero carbon emissions building on the latest science and innovative opportunities to decarbonize the industry.³⁵

Re-examine the National Airports Policy

The government should consider modifying the National Airports Policy to establish potential business models or frameworks that would benefit Canadian airports, small and large. Allowing the larger Canadian airports to use private-sector equity could lead to an invigorated, technology-led sector that grows and develops to meet future travel demands while reducing the potential market and financial risk to the federal government and the Canadian public at large. However, the sector is unlikely to attract substantial private investment until it recovers more fully. The government may want to consider relaxing the strict cost-recovery approach on airports and air-navigation services or even offering a "rent holiday" until passenger volumes recover to a given proportion of pre-pandemic levels. In the medium term, this would avoid major user-fee increases while the industry seeks to rebuild passenger traffic. The cost recovery approach does not need to be abandoned, but it must be applied more flexibly and over an appropriate timeframe. At a minimum, the government should consider standardizing lease agreements across the largest Canadian airports.

Ensure timely regulatory approvals

New practices or new equipment (e.g., for rapid COVID-19 testing) will need to be introduced into air travel operating environments. It is essential that Canadian regulators be responsive and provide timely approvals for these changes and innovations. Speedy action to establish US Customs and Border Protection pre-clearance in key centres, such as Toronto's Billy Bishop airport, 36 would further support air travel recovery and open new route options for Canadian carriers, attracting new carriers as well.37



Action the aviation sector can take

Aviation sector players must also take an active role in reinventing their industry. They must challenge orthodoxies and capitalize on opportunities for reform and adapt collectively to the next normal. These opportunities include actions such as:

Rethinking business and operating models

A fundamental rethink of the aviation business and operating models needs to happen. Airlines, for example, may decide that it makes strategic sense to review and update their low-cost carrier models to compete with new market entrants or prioritize those markets best suited to their remaining fleet. They should also explore opportunities to be innovative and stretch the boundaries of their traditional models and value chains—Air Canada's and WestJet's moves into cargo are examples of this.

Forming relationships outside aviation

The aviation industry has had a longstanding relationship with tourism and hospitality. But this may be the ideal time to explore and form new bonds with organizations outside these more traditional sectors, such as consumer goods and financial services. Multimodal partnerships could strengthen links between aviation and other transportation systems, such as rail and bus. This could improve overall access to transport and service levels by creating more diversified services, better connectivity across distribution nodes, and more effective distribution points. Striking non-traditional alliances in this way could spark new economic development opportunities in the process.

Driving non-aeronautical revenue

Both airlines and airports should consider harnessing both internal and external innovation38 to identify, explore, and embrace non-aviation sources of revenue. US airline letBlue has expanded into several non-aviation areas, including vacation travel, car rental, travel insurance, ridesharing and other micro-mobility services, the cruise industry, and short-term accommodation rentals.39 Such moves could allow airlines to capitalize on their brand recognition while replacing—to some extent—the revenues lost to pandemic-related changes. Airlines and airports may be able to transform customer data into a revenue generator via variable rates for advertisers or personalized recommendations for passengers. 40 Airports themselves each have a unique portfolio of non-aeronautical activities, and could continue to lobby governments to permit duty-free shopping for passenger arrivals. Finding the optimal balance between passenger-related activities (e.g., retail, concessions) and commercial revenues (e.g., real estate income, rents) will be key.41



Embracing sustainability

The imperative to act on climate change and sustainability is growing. In June 2021, the federal government announced that all Canadian car and truck sales must be zero-emission by 2035;⁴² action on aviation emissions is surely to follow. Consumers, businesses, and investors will also expect the aviation sector to take meaningful action on sustainability and do so quickly.

Deloitte itself is committed to achieving net-zero greenhouse gas emissions by 2030, including a 50% reduction in business travel emissions;⁴³ to this end, Deloitte has entered into sustainable aviation fuel agreements with several US airlines that will cut its CO2 emissions by approximately 5,000 metric tons.⁴⁴ Aviation industry participants need to form alliances and accelerate efforts to reduce their carbon footprint and strengthen the sustainability value proposition for air travel across the aviation ecosystem.

Investing in technology

Airports and their airline partners could adopt new technologies, such as biometrics and Internet of Things connected devices, to improve passenger flow and reduce the likelihood of long lineups and crowds. While such technologies are useful in the context of COVID-19, their utility would extend well past the pandemic. Anything that keeps passengers moving and contributes to a better customer experience is bound to be beneficial and serve as a differentiator in the market. Better use of analytics can monitor, predict, and respond to changing business and network conditions. Digital twins—virtual replicas of physical devices that are used run simulations before actual devices are built and deployed—can help airlines improve flight routing, reduce airborne delays that increase carbon emissions,45 and identify opportunities for operational improvements.

Delivering a better passenger experience

Aviation players could also take steps to enhance the experience of passengers throughout their journey. Airlines could use technology to create new ways to sell seats, building on their experience with dynamic pricing to provide passengers with more flexibility when booking travel. Making ticket terms and conditions as clear as possible—while ensuring full compliance with Canada's Air Passenger Protection Regulations—would build trust and improve consumer confidence. Airports, airlines, and other players could also strive to make air travel more accessible for older passengers and people with disabilities; this would help both grow the market and enhance their brand.



Aviation reform needs to take off

Calls for aviation reform are not new, but the need for action has never been more urgent. The sector has weathered many disruptions in recent decades, including 9/11, the SARS outbreak, and the global financial crisis. Each time the industry recovered, though it has often taken five to six years to do so.⁴⁶

COVID-19 has presented challenges on an unprecedented scale. Recovery threatens to last much longer, and largely depends on the world's ability to rein in the virus. Customers' sense of financial security and their perceptions of the risks involved in air travel, as well as how those risks are being managed, will also be significant factors. The aviation industry and Canada's economy can't afford a recovery that takes a decade or more.

Government and industry need to reimagine their partnership and collaborate more closely than ever before. They must rally around a common vision of an aviation ecosystem that's resilient, thriving, and committed to achieving rapid and meaningful improvements on sustainability and carbon emissions. And in taking action, both government and industry must be bold: now is the time for innovative ideas and new approaches that will enable aviation to rebound better, stronger, and more sustainable and competitive than ever before.

Endnotes

- ¹ Source: Deloitte analysis
- ² FlightGlobal, "Canadian airlines lost 23% of international market share: WestJet chief." Mar. 3, 2021. https://www.flightglobal.com/networks/canadian-airlines-lost-23-of-international-market-share-westJet-chief/142707.article
- ³ Vancouver Airport Authority, "It's true, we've got |etBlue!" Apr. 21, 2021. https://www.yvr.ca/en/blog/2021/jetblue
- ⁴ IATA, "The Importance of Air Transport to Canada." https://www.iata.org/en/iata-repository/publications/economic-reports/canada--value-of-aviation/
- ⁵ IATA, "The Importance of Air Transport to Canada." https://www.iata.org/en/iata-repository/publications/economic-reports/canada--value-of-aviation/
- ⁶ Bank of Canada annual USD/CAD exchange rate for 2017 used. USD\$1=CAD\$1,2986.
- ⁷ IATA, Air Cargo Market Analysis December 2020. https://www.iata.org/en/iata-repository/publications/economic-reports/air-freight-monthly-analysis---december-2020/
- 8 IATA, "January Passenger Demand Falls Further." Mar. 2, 2021. https://www.iata.org/en/pressroom/pr/2021-03-03-03/
- https://www.iata.org/en/iata-repository/publications/economic-reports/air-passenger-monthly-analysis---august-2021
- ¹⁰ Travelweek Group. "More routes in jeopardy post-COVID but Air Canada will wait on govt. talks," Nov 9, 2020. https://www.travelweek.ca/news/more-routes-in-jeopardy-post-covid-but-air-canada-says-it-will-wait-on-govt-talks/
- ¹¹ The Calgary Herald, "WestJet announces more layoffs, route reductions in response to federal COVID test requirement." Jan. 8, 2021. https://calgaryherald.com/business/local-business/westjet-announces-more-layoffs-route-reductions
- ¹² Source: Deloitte analysis.
- ¹³ Deloitte, 2020 Holiday retail outlook. https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/consumer-industrial-products/ca-en-consumer-industrial-products-deloitte-holiday-retail-outlook-aoda.pdf
- ¹⁴ Marketline, "Air Freight North America (NAFTA) Industry Guide 2015-2024." https://store.marketline.com/report/mlig200015-03-air-freight-north-america-nafta-industry-guide-2015-2024/
- ¹⁵ Bank of Canada annual USD/CAD exchange rate for 2017 used. USD\$1=CAD\$1.2986.
- 16 https://www.iata.org/en/pressroom/2021-releases/
- ¹⁷ IATA, "January Air Cargo Demand Recovered to Pre-COVID Levels." Mar. 2, 2021. https://www.iata.org/en/pressroom/pr/2021-03-02-01/
- ¹⁸ Ian Putzger, "Air Canada plans a dedicated freighter fleet to expand cargo business." Theloadstar.com, Nov 13, 2020. https://theloadstar.com/air-canada-plans-a-dedicated-freighter-fleet-to-expand-cargo-business/
- ¹⁹ Air Canada, "Air Canada Cargo Announces Launch Routes For Its Newly Converted Freighter Aircraft Arriving This Fall."

 Jun. 14, 2021. https://www.newswire.ca/news-releases/air-canada-cargo-announces-launch-routes-for-its-newly-converted-freighter-aircraft-arriving-this-fall-842466571.html
- ²⁰ WestJet, "WestJet Cargo Announces Dedicated Freighters to Better Serve Canada." June 23, 2021. https://www.newswire.ca/news-releases/westJet-cargo-announces-dedicated-freighters-to-better-serve-canada-883112161.html
- ²¹ IATA, "ACI World and IATA in Joint Push for Globally Consistent Approach to Testing." October 7, 2020. https://www.iata.org/en/pressroom/pr/2020-10-07-01/.
- ²² Chris Burt, "Airport biometrics and digital identity deployments expand in US, India." Biometricupdate.com. Oct 22, 2020. https://www.biometricupdate.com/202010/airport-biometrics-and-digital-identity-deployments-expand-in-us-india
- ²³ Sumit Singh, "Lufthansa Interview: Forget Your Boarding Pass: Your Face Will Be Enough to Board Flights." Simplyflying.com, Nov 13, 2020. https://simpleflying.com/lufthansa-interview-forget-your-boarding-pass-your-face-will-be-enough-to-board-flights/
- ²⁴ FlightGlobal.com, "How IATA's new app could help ease travel restrictions." Feb. 24, 2021. https://www.flightglobal.com/strategy/how-iatas-new-app-could-help-ease-travel-restrictions/142602.article
- 25 https://www.gatwickairport.com/parking/

- ²⁶ Transport Canada, *Transportation in Canada: Statistical Addendum*, 2016-2019, and Deloitte analysis.
- ²⁷ CBC News, "Federal government, Air Canada reach deal on relief package that includes customer refunds." Apr. 12, 2021. https://www.cbc.ca/news/politics/air-canada-financial-relief-1.5984543
- ²⁸ CBC News, "Travel company Transat AT reaches \$700 million aid deal with Ottawa." Apr. 29, 2021, https://www.cbc.ca/news/politics/travel-company-transat-at-reaches-700m-aid-deal-with-ottawa-1.6006792
- ²⁹ Financial Post, "Porter Airlines to get \$135 million in funding from federal government after coronavirus grounds flights." Mar. 27, 2020. https://financialpost.com/transportation/airlines/porter-airlines-to-get-135-million-in-funding-from-federal-government
- ³⁰ Canada Enterprise Emergency Funding Corporation, "LEEFF loan to Sunwing Airlines protects Canadian jobs." Feb. 1, 2021. https://www.newswire.ca/news-releases/leeff-loan-to-sunwing-airlines-protects-canadian-jobs-870625246.html
- 31 Transport Canada, Canada Transportation Act Review Report. https://tc.canada.ca/en/corporate-services/acts-regulations/ canada-transportation-act-review-report?_cldee=Y2VvQGF1bWEuY2E%3d&utm_source=ClickDimensions&utm_medium=email&utm_ campaign=2016%20Committee%20of%20the%20Whole%20-%20English
- ³² The Guardian, "France to ban some domestic flights where train available." Apr. 12, 2021. https://www.theguardian.com/business/2021/apr/12/france-ban-some-domestic-flights-train-available-macron-climate-convention-mps
- 33 David Nikel, "Dutch Airline KLM To Replace a Plane With A Train." Forbes.com. https://www.forbes.com/sites/davidnikel/2019/09/19/dutch-airline-klm-to-replace-a-plane-with-a-train/?sh=79dc4e2f7ffb
- ³⁴ Canada NewsWire, "Government of Canada delivers on commitment to appoint an independent net-zero advisory body." https://www.newswire.ca/news-releases/government-of-canada-delivers-on-commitment-to-appoint-an-independent-net-zero-advisory-body-805119919.html
- 35 Sustainable Aviation, "Decarbonisation road-map: A path to net zero." https://www.sustainableaviation.co.uk/wp-content/uploads/2020/02/SustainableAviation_CarbonReport_20200203.pdf
- ³⁶ Mike Arnot, "This is why you can't fly to LaGuardia from Toronto's convenient island airport." Thepointsguy.com, Mar. 10, 2020. https://thepointsguy.com/news/toronto-ytz-preclearance/
- 37 EINPresswire.com, "Waltzing Matilda Aviation US Northeast/Midwest-Billy Bishop Toronto City Airport Scheduled Passenger." April 20, 2021. https://www.einnews.com/pr_news/538853556/waltzing-matilda-aviation-us-northeast-midwest-billy-bishop-toronto-city-airport-scheduled-passenger
- ³⁸ Airports Council International, *Innovation at Airports in North America.*" April 2020. https://airportscouncil.org/wp-content/uploads/ Airport-Innovation/Innovation-at-Airports-in-North-America.pdf
- ³⁹ Dennis Schaal, JetBlue to Debut Short-Term Rentals as Part of Its Growing Non-Air Offerings." Skift.com. https://skift.com/2020/11/11/jetblue-to-debut-short-term-rentals-as-part-of-its-growing-non-air-offerings/
- ⁴⁰ Deloitte, "Flying smarter: The smart airport and the Internet of Things." https://www2.deloitte.com/us/en/insights/industry/public-sector/iot-in-smart-airports.html
- ⁴¹ Airports Council International, "The impact of COVID-19 on the airport business and the path to recovery." Mar. 25, 2021. https://aci.aero/news/2021/03/25/the-impact-of-covid-19-on-the-airport-business-and-the-path-to-recovery/
- ⁴² Transport Canada, "Building a green economy: Government of Canada to require 100% of car and passenger truck sales be zero-emission by 2035 in Canada." June 29, 2021. https://www.canada.ca/en/transport-canada/news/2021/06/building-a-green-economy-government-of-canada-to-require-100-of-car-and-passenger-truck-sales-be-zero-emission-by-2035-in-canada.html
- ⁴³ Deloitte, https://www2.deloitte.com/global/en/pages/about-deloitte/articles/world-climate.html
- ⁴⁴ Deloitte, https://www2.deloitte.com/us/en/pages/about-deloitte/articles/sustainable-aviation-fuel-agreements.html
- ⁴⁵ Deloitte, Optimal Reality Digital Twin: Climate change is a wicked problem. https://www2.deloitte.com/au/en/pages/strategy-operations/solutions/optimal-reality-digital-twin.html
- ⁴⁶ The Airline Passenger Experience Association, "How the Airline Industry Survived SARS, 9/11, the Global Recession and More. Jun. 9, 2020. https://www.flightglobal.com/networks/canadian-airlines-lost-23-of-international-market-share-westjet-chief/142707.article

Contact

Dejan Markovic

Director, National Aviation Leader dmarkovic@deloitte.ca

Contributors

Yvonne Rene de Cotret

Partner, Consulting

Bryan Terry

Managing Director, Global Aviation Leader

Mario Iacobacci

Partner, Economic Advisory

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

Deloitte.

About Deloitte

Deloitte provides audit and assurance, consulting, financial advisory, risk advisory, tax, and related services to public and private clients spanning multiple industries. Deloitte serves four out of five Fortune Global 500° companies through a globally connected network of member firms in more than 150 countries and territories bringing world-class capabilities, insights, and service to address clients' most complex business challenges. Deloitte LLP, an Ontario limited liability partnership, is the Canadian member firm of Deloitte Touche Tohmatsu Limited. Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Our global Purpose is making an impact that matters. At Deloitte Canada, that translates into building a better future by accelerating and expanding access to knowledge. We believe we can achieve this Purpose by living our shared values to lead the way, serve with integrity, take care of each other, foster inclusion, and collaborate for measurable impact.

To learn more about Deloitte's approximately 330,000 professionals, over 11,000 of whom are part of the Canadian firm, please connect with us on LinkedIn, Twitter, Instagram, or Facebook.

© Deloitte LLP and affiliated entities.

Designed and produced by the Agency | Deloitte Canada. 21-3639287