VALUATION AT CANADIAN AIRPORTS

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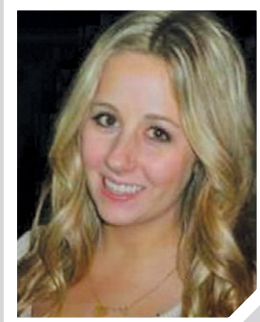

Airports are an important component of almost every city and larger town. Today, Canada has 26 airports forming part of the National Airports Policy (NAP), 726 certified airports that support scheduled and non-scheduled flights, and 1,700 aerodromes that support takeoffs and landings. 94% of all air passengers and cargo use the 26 NAP airports. These 26 are categorized into six tiers according to the size (number of passengers). Tier 1 airports are Toronto and Vancouver, as they have the largest number of passengers, and Gander is the only Tier 6 airport, with the least amount of traffic. Airports support both commercial and general aviation activity. Commercial aviation activities range from international and domestic air passenger and freight transportation, carried out by the major airlines, to specialty functions such as flight training, crop dusting or aerial photography. General aviation involves private aircraft such as corporate jets, single engine planes and ultra-light motorized hang gliders, as well as the sectors that support them.

Airports are interesting infrastructure from a real estate perspective, in that they take up a significant amount of real estate, sometimes hundreds of hectares, that is well located in proximity to urban communities. Vancouver International Airport, for example, covers approximately 1,340 hectares of area on Sea Island and is 20 minutes from the downtown core by transit. Much of the real estate at an airport is dedicated to common property – runways, ramps and adjacent buffer areas that generate little revenue, save for charges such as landing fees.

The value of the land underlying an airport, based on highest and best use in alternate use (in urban areas, often an industrial business park) can be very significant, in the billions of dollars for the largest airports. Although the direct, indirect

and induced economic benefits from airports can be significant, revenues generated from airport operations – rentals, landing fees and so forth – often do not provide a market return on the underlying asset. Yet, it is rare to see a Canadian airport decommissioned and put to alternate use.

Although in some senses oligopolies, competitive forces can exist that influence the business of airports. The largest of Canada's airports believe they compete with nearby American airports for some business lines. Smaller airports often compete with each other for tenants and airlines. For example, an airline contemplating expansion to more airports might call for proposals from potential airports, favouring those offering attractive terms, favourable rents and potential synergies, such as the presence of smaller, feeder regional air services.

Airports where the federal government continues to hold the land are generally not subject to municipal, regional or provincial regulation, so local land use controls might have no application. These airports will have specific land use plans that govern uses within their boundaries. Canadian airport operators deal with various challenges in managing real estate. General aviation uses are in decline at many airports because of the high cost of owning and operating private aircraft. This affects the demand for general aviation facilities and the ability of existing tenants that service general aviation users to afford rising rents. Commercial aviation activity is increasing in Canada, with more flights involving more airports, e.g., through subsidiary operations, both WestJet and Air Canada are increasing service, particularly to smaller airports.

New aircraft are increasingly efficient in fuel usage, which lowers operating costs per passenger mile and extends the range of aircraft. International flights consequently can fly nonstop between distant points, e.g., between Beijing and Toronto. This reduces the need to land primarily for refuelling, so airports built for that purpose now see less traffic.

Air cargo is an increasingly attractive source of revenue for aircraft; a passenger aircraft can contain commercial cargo along with passengers and their luggage. This is one reason air carriers are more sensitive to the amount of luggage passengers want to take with them. Some large aircraft only carry cargo, and there are even cargo airlines, e.g., Cargojet, that operate a fleet of air cargo planes across Canada. Cargo jets often travel at different times than passenger aircraft, and, because carrying less fuel means carrying more cargo, they might have one or more refueling stops between destinations that passenger aircraft connect with nonstop flights.

Competition between air carriers has been stiff. Recently, many of the major airlines around the world were losing money. The move is away from government owned airlines. Due to high public subsidy costs, consolidation is ongoing, and competitive forces are driving cost reduction and revenue maximization efforts. In the face of this, Canada has some strong carriers, e.g., Skytrax Global Survey has named Air Canada the best airline in North America for four consecutive years, and consistently profitable WestJet is growing.

At Canada's major airports, demand for real estate is strong, land supply is limited and, particularly for airports located near the centre of trade areas, values are high. Airports are interconnected, e.g., by the 'hub and spoke' connection networks (in Canada, more like a 'necklace') that airline economics favour, so it is difficult to move commercial aviation activities to nearby regional airports. Some general aviation activities are relocating to smaller nearby airports, but the opportunities to free up land for commercial users at busy airports through this mechanism are limited; centralized management of all the airports in a region might enhance space allocation. Meanwhile, busy airports often have little opportunities to add land; the growing demand for more and longer runways creates pressures that reduce the availability of land for commercial aviation purposes.

Airport devolution

Initially, the federal government owned

NAP
(NATIONAL AIRPORTS POLICY)
AIRPORTS

- Calgary International Airport
- Charlottetown Airport
- Edmonton International Airport
- Greater Fredericton Airport
- Gander International Airport
- Halifax-Robert L. Stanfield International Airport
- Iqaluit Airport
- Kelowna International Airport
- London International Airport
- Greater Moncton International Airport
- (Montréal) Mirabel International Airport
- Montreal Pierre Elliott Trudeau International Airport
- Ottawa International Airport
- Prince George International Airport
- (Québec City) Jean Lesage International Airport
- Regina International Airport
- St. John's International Airport
- Saint John Airport
- Saskatoon John G. Diefenbaker International Airport
- Thunder Bay International Airport
- (Toronto) Lester B. Pearson International Airport
- Vancouver International Airport
- Victoria International Airport
- Whitehorse International Airport
- Winnipeg James Armstrong Richardson International Airport
- Yellowknife International Airport

and operated Canadian airports. While providing direct control over air transportation, this operation model required direct and indirect operating subsidies. In 1987, the federal government initiated the process of transferring management of Transport Canada airports to Local Airport Authorities (LLAs). LLAs were created to devolve responsibility for transport support industries from the public sector to the private sector. In 1992, the first four transfers took place in Vancouver, Edmonton, Calgary and Montreal. LLAs were operated by private sector community groups leasing the airport from the federal government, and were mandated to manage and operate the airport in the interests of the local community on a non-profit basis.

In 1994, the federal government created the National Airports Policy (NAP). The policies were created with the following principles:

- airports should operate based on user pay, and
- the transfer of airports to local interests will lead to improved management and efficiencies.

The NAP also set out the framework to define the federal government's role with airports. The lands underlying the 26 nationally significant airports that form the National Airports System (NAS) continue to be owned, for the most part, by the federal government. Responsibility for the operation, management and development of NAS airports is transferred to local airport authorities. The local operators will be responsible for the financial and operational management of their airport. The rationale of the NAP is to shift the cost of running Canada's airports from taxpayers to the user of the facilities. This policy arose from fiscal realities at the federal level in the early 1990s and is the source of the widely reported difference in costs of flying, compared to nearby airports in the US, where airports and the aviation industry continue to receive money from various levels of government.

Unless they serve a capital city, airports that handle fewer than 200,000 travelers a year are considered regional/local airports. For these airports, ownership and operation has been transferred to provincial, local or private sector interests. Transfers were often at nominal value, such as Abbotsford for $10. Financial responsibility for these airports, which generally do not operate at a break-even basis, is the responsibility of the local airport authority, often the local government or a local non-profit authority.

Today, Transport Canada is responsible for:

- property and lease management functions for airports transferred to locally-based airport authorities,
- airport safety and security standards,
- certification and regulation of all airports,
- administration of the Airports Capital Assistance Program (ACAP),
- support to Transport Canada regional staff for the management of regional/local and remote airports,
- monitoring the ongoing performance of the Canadian airport industry, and
- negotiating the transfer of regional/local airports owned and operated by Transport Canada.

In Canada, airports are designated by a three-letter code, defined by the International Air Transport Association (IATA), an international industry trade group based in Montreal.

Examples of Canada's airports follow.

Vancouver International Airport (YVR)

At Vancouver International Airport (YVR), the Government of Canada owns the 1,340 hectares of land, which, since 1992, it has leased to the Vancouver International Airport Authority (YVRAA). YVRAA operates the airport and leases portions of land to a number of companies such as Air Canada, WestJet, several seaplane companies, and major couriers (UPS, FedEx, and Purolator). Other fees and charges determined by YVRAA include landing fees, general terminal fees, aircraft parking fees, airport improvement fees, security fees, turn-around fees, annual exclusive rental rates, and common use facility fees and charges. Save for commercial rental arrangements, which are confidential for competitive reasons, most fees and charges are public information and can be found on the *yvr.ca* website.

In addition to flights, the Vancouver airport is home to more than 160 shops, services and restaurants, of which approximately 100 are airport-related. A recent report released by the YVRAA estimated that the airport contributed approximately $1.9 billion to the local economy through direct employment and an estimated $5.3 billion indirectly.

James Armstrong Richardson International Airport (YWG)

James Armstrong Richardson International Airport (also known as Winnipeg International Airport) is the eighth busiest airport in Canada by passenger traffic and has been Canada's longest serving international airport. The Winnipeg Airport Authority (WAA)

operates it as part of Transport Canada's National Airports System and is a Tier 2 airport under this system. The federal government transferred control of the airport to WAA on January 1, 1997. WAA employs over 160 airport specialists

It is a hub for passenger airlines Calm Air, Kivalliq Air and Perimeter Airlines, and is a focus city for Air Canada Express and WestJet. The airport is co-located with CFB Winnipeg and its primary lodger unit is 17 Wing. The base is home to 402 'City of Winnipeg' Squadron, 435 'Chinthe' Transport and Rescue Squadron, and the Yellowknife-based 440 'Vampire' Transport & Rescue Squadron.

As Transport Canada (the federal government) owns the airport land, government operations such as the military base do not have to lease the facilities they use and operate. WAA operates the airport and leases out airport space to restaurants, shops, car rentals, gas stations, Greyhound, and courier companies such as FedEx and Purolator. As with most airports, the federal government's land is conveyed to users in long-term leasehold arrangements. In addition, aircraft tariff and aviation fees include landing, emergency landing, state aircraft, piston aircraft, training aircraft, loading bridge, ground loading, apron usage, sewage sump, cargo stand usage, passenger processing, and airport improvement fees.

Richardson International Airport is included in a new 20,000-acre (81 km2) inland port area created by provincial legislation – *CentrePort Canada Act, C.C.S.M. c. C44* – that will offer investment opportunities for distribution centres, warehousing and manufacturing. CentrePort Canada will allow companies to take advantage of the cargo capabilities of Richardson International Airport, as well as serviced land, a mid-continent location, and highway and rail transport.

Gander International Airport (CYX)

Gander International Airport (CYX) is located in Gander, Newfoundland, on the Labrador coast, and has been run by the Gander International Airport Authority since 2001. The airport occupies 11,278 acres of land, and is centrally located just east of downtown Gander. Strategically located along routes between the Americas and Europe, the Gander International Airport Authority has a major service role of providing technical stop services to commercial carriers and corporate aircraft for their transatlantic activities. It remains the home of Gander Control, one of the two air traffic controls that direct the high-level airways of the North Atlantic. Scheduled airlines include Air Canada, Air Canada Express, Jazz Air and Exploits Valley Air Services.

Gander International Airport earns revenue from leasing land to car rentals, restaurants and other airport service businesses; aerospace firms such as CHC Composites, Briggs Aero and Gander Aerospace Training Centre; and training, fabrication, repair, warehousing and distribution companies. The airport reportedly leases land at $3 per square meter, and allows the tenants to build their own buildings and improvements. The airport also leases 257,000 square meters or 63.5 acres of land for Canadian Forces Base Gander at a rate of less than $3 per square meter (airport land rental rates are conventionally expressed in metric terms). Additional sources of revenue come from airlines such as counter space rental in the terminal, landing fees, terminal fees, aviation fuel fees, concessions, rentals, miscellaneous, interest income, and airport improvement fees.

North Bay Jack Garland Airport (YYB)

The municipality-owned North Bay Jack Garland Airport (YYB) is minutes from the downtown core, and is served by several air carriers and charter operations with daily flights to Toronto, Ottawa and Sudbury. YYB provides national and international connector service for North Bay and other Northern Ontario communities. The Municipality of North Bay has owned the airport since 1998 after transfer from Transport Canada, and the North Bay Jack Garland Airport Corporation has run it since 2003. The airport consists of 190 acres, which includes the North American Aerospace Defense Command base, an Airport Industrial Business Park, and some 31 individual businesses based at the airport. Aerospace firms involved in aircraft manufacturing/assembly, maintenance, repair and overhaul, and flight training and post-secondary aviation training are all established at the airport.

Currently, land is available for lease or purchase in the Airport Industrial Business Park. Airside lots range in size from 2.2 acres to 10 acres and groundside lots range in size from 1.4 to 10.1 acres.

Airport appraisals

Appraisal assignments substantially revolve around land rent (or 'ground rent') appraisals: leaseholds have been the favoured tenures at most airports, since most airport authorities cannot sell land due to restrictions in the headlease. Non-NAP airports might lease or sell land, depending on the nature of the local authority and its historic arrangements with the federal government. Improvement lease appraisals are sometimes required, and these can be distinct from the underlying land. Specialized leases at terminals sometimes require valuation work.

Appraisal data research

Some airport authorities treat rental information as highly confidential, to the extent that leases contain confidentiality provisions. At other locations, lease data is more freely available; at some municipal airports, rental rates and policies are available online.

Airport rental data comes from a variety of sources. Rents and lease rates charged by the subject and comparable airports is collected. Use restrictions are important considerations in analyzing rents; airport leases tend to be long-term, and many older leases contain provisions that affect rent. A unique consideration to airport lease analysis is the Airport Management Charge (AMC), levied by some airport authorities to cover maintenance costs such as runway maintenance, which municipal taxes do not cover.

As mentioned, buildings can be leased separately from the land on which they sit. Sometimes this happens through vesting, when the initial ground lease term ends, and still useable improvements become the property of the airport authority. In other instances, an airport tenant might sublease building and yard space to third parties. These subtenants will pay base rent, plus additional charges that includes ground rent and AMC charges.

Investigating airport market data can be complicated by confidentiality restrictions, other business activities (e.g., a car rental firm provides needed services to airport guests and so are particularly desirable as a tenant), monopoly considerations (e.g., the only gas bar at an airport), and so forth. As well, airport leases typically entail the same landlord, so a rental analysis based solely on leases at the airport must consider whether non-market factors affect rents – some airport managers try to encourage economic activity at an airport by charging low or nominal ground rents, while at other locations, all leases are based on independent appraisal advice.

Rents levied for industrial facilities 'off-airport' might be considered, however, adjustment considerations include the ground rent, AMCs and the economic benefit of having secured access to 'the belly of a plane.'

Development of land rent

Public Works Government Services Canada (PWGSC) was the original operator of most airports, and its leasing practices formed the basis for tenures and rents at the airports today. Tenants would receive leases on developed and undeveloped sites, for long terms, typically 30 years, with rents reset every five years. Depending on when they were written and who drafted them, land leases have various provisions for rent review. A common requirement calls for rents to be reset to market levels, with definitions of market rent typically set out in the lease.

Various appraisal methods are available to develop market rents:

- Direct comparison with other leases at the airport. A variation of this method analyzes rents at comparable airports. (Results of this variation can be robust or surprisingly weak, particularly if the comparable airports only survey each other for rents – in such circumstances, rents can fall far behind the economic marketplace.)
- Rate times value (R x V) or the income approach (I), whereby I = V x R. The value of land (generally business park industrial land, for airport land uses are typically industrial in character) comparable to the airport is determined, and a market-based rate of return applied to determine rent. This is a common rent determination method.
- Direct comparison with land leases having similar uses (again, usually industrial). This technique can provide excellent insight into ground rents.

Development of improvement rent

Outside of terminals, the most common way for an airport authority to become the owner of improvements is when a tenant's lease ends and the improvements vest to the landlord. Improvement rent, e.g., for a hanger, can be determined through comparison with other similar leases; however, off-the-airport comparables are obviously uncommon. Airports often assign a ground rent to the site and a separate rent to the building. Comparison rents will exist at larger airports. 'Rate times value' based on depreciated replacement cost is also an option. Expertise is required in the costing and depreciation of airport facilities, for these special purpose improvements entail special considerations. Hanger doors can be expensive, for example, as can some of the epoxy floor coverings used in hangers; both are short-lived items.

Development of terminal rents

Terminals contain a variety of tenancies, such as rental car offices, restaurants and convenience stores. Airport authorities establish rents for terminal tenancies either through competitive bidding or through comparison. Some authorities restrict potential tenants to those active in the local marketplace, and insist on 'street level pricing,' where, for example, a restaurant tenant can charge no more for a meal than it charges at other restaurant outlets, off the airport, in the local marketplace.

Conclusion

Canada's airports involve substantial real estate holdings; the largest can represent economic activity in the hundreds of millions, if not billions of dollars in a year. Valuation work at the airports is made interesting due to the unique characteristics of airports and some of the management practices an appraiser might encounter.

References

Airport Devolution: The Canadian Experience. Brooks, M.R., Prentice, B. University of Winnipeg.

Canadian Airports Council (CAC) *http://www.cacairports.ca/*

Gander Airport. *http://www.ganderairport.com/ http://www.cacairports.ca/english/canadas_airports/index.php*

North Bay Jack Garland Airport. *http://www.northbayairport.com*

Statistics Canada. *http://www.statcan.gc.ca*

Transport Canada (1994c), National Airports Policy. Ottawa: Transport Canada.

Transport Canada. *Regional and Small Airports Study, http://www.tc.gc.ca/eng/programs/airports-rsas-appendixb-415.htm*

Vancouver Airport Authority, *Environmental Management Plan,* Vancouver Airport Authority, November 2008, *http://www.yvr.ca/Libraries/ENV_Docs/YVR_EMP_2009.sflb.ashx*

Vancouver Airport Authority, *Vancouver International Airport 2010 Economic Impact Report*, Vancouver Airport Authority, May 2011, *http://www.yvr.ca/Libraries/2010_Annual_Report/2011_05_12_Economic_Impact_Summary_FINAL.sflb.ashx.*

Winnipeg James Armstrong Richardson International Airport. *http://www.waa.ca/*

YVR. *www.yvr.ca*

YVR: Your Airport *2027 20-Year Master Plan*. Vancouver Airport Authority. *http://www.yvr.ca/Libraries/Who_We_Are/yvr_masterplan.sflb.ashx*