VALUATION SERIES

No. 39 / APRIL 2020

PUBLIC CHOICE ALTERNATIVES

Opportunity Takes Flight on the Prairies

A VALUATION & STRATEGIC APPRAISAL OF WINNIPEG J. A. RICHARDSON INTERNATIONAL AIRPORT

BY IAN MADSEN

FRONTIER CENTRE FOR PUBLIC POLICY

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EXECUTIVE SUMMARY

Winnipeg James Armstrong Richardson International Airport, managed by the Winnipeg Airport Authority, 'WAA', whose symbol is YWG, is the community corporation for the airport serving metropolitan Winnipeg, domestically and internationally. Its market area is larger: most of Manitoba and part of north-western Ontario. It is a non-profit, untaxed entity that is managed autonomously and ultimately owned by the federal government; although that is not clear in the material WAA provides. Such clarification from the airport could be required in the future.

Using an **intrinsic value method,** with fully taxed net income as a proxy for free cash flow, the entity's value is estimated from a minimum of $0.66B to a maximum of $2.29B, with a tighter, more plausible range of a median (midpoint of all the relevant values) of $1.03B to a mean (simple average of all the relevant values) of $1.14B.

Under the **market-based valuation system,** using seven standard valuation metrics (P/E, P/Sales, EV/Rev, EV/EBITDA, P/CF: trailing and forward Price/Earnings, Price/Sales; Price/Book Value; Enterprise Value to Revenue; Enterprise Value to Earnings Before Interest, Taxes & Depreciation & Amortization; Price/Operating Cash Flow), the current value ranges from $0.20B to $1.51B, with a median of $0.52B and a mean of $0.75B.

The company has positive operating cash flow and positive returns on assets, equity, and capital employed. Similar utility-like companies usually pay a dividend to investors. The company is showing sufficient income to pay a dividend; a plan to provide one would make its public market flotation more successful (several large airports around the world are already publicly listed and traded; others are owned by other investors, so divestment is quite normal).

Scenario experiments in this study indicate that WAA should have part of its debt extinguished to optimize total sale proceeds to the citizens of the city, region, province, and nation. As the entity's debt level is a little high in relation to its cash generation capacity and its capital expenditure needs exceed operating cash flow, much, if not all of the first sale proceeds of treasury shares in a partial divestiture might or should be used to lower YWG's debt and not go to government coffers. The experiments indicate, albeit not definitively, that using proceeds to retire at least one quarter of its long-term debt is likely the optimal strategy; perhaps half or more.

One nonsensical and dysfunctional policy of the federal government is to charge YWG substantial rent on the land it occupies, raising the costs and lowering the margins of YWG. This increases costs to airlines and their passengers. As the government also owns YWG, it is effectively charging rent to itself, serving only

to make YWG and air travel less attractive and lower the potential value of the entity. Additional scenarios are included in this report which explore what the removal of this expense would do to YWG's valuation: such removal increases it substantially. Below is a summary table of the average estimated value of the airport under both the intrinsic value and the market value method, assuming no use of proceeds to reduce debt; reduction of one quarter of debt; and finally, reduction of one half of the debt. The onerous federal land lease rental cost expense remains.

Table 1

Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of the Airport in 2019

Airport Continues Paying Federal Land Lease Rental Expense	Intrinsic Value (Average of Mean & Median)			Market Value (Average of Mean & Median)		
	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v
Figures in $B.	No Extinguishing of L-T Debt	Extinguishing of 1/4 of L-T Debt	Extinguishing of 1/2 of L-T Debt	No Extinguishing of L-T Debt	Extinguishing of 1/4 of L-T Debt	Extinguishing of 1/2 of L-T Debt
Gross Value (Average of Mean & Median)	$ 0.88	$ 1.20	$ 1.21	$ 0.63	$ 1.27	$ 2.33
Minus Sale of Proceeds Used to Retire Debt	$ 0.00	$ 0.18	$ 0.36	$ 0.00	$ 0.18	$ 0.36
Net Value	$ 0.88	$ 1.02	$ 0.85	$ 0.63	$ 1.08	$ 1.97

Calculations used models incorporating financial results from YWG Annual Reports, key financial statistics from peer companies.

In these experiments, value is maximized according to the intrinsic model when interest-bearing debt is reduced by one half. The market valuation method also shows substantial improvement when debt is reduced. Serious consideration should be given to reducing the debt load of the airport.

Alternative Scenario: Eliminating the Federal Land Lease Rental Expense

Below is a summary table of the average estimated value of the airport under both the intrinsic value and the market value method, assuming no use of proceeds to reduce debt, reduction of one quarter of debt, and reduction of one half of the debt, with the change of the elimination of the federal land lease rental expense, and the use of one half of the savings of that expense to reduce the landing fees to airlines and their passengers and other customers. It was assumed that the price reduction would modestly raise demand, in accordance with economic theory, and studies that used estimated price sensitivity or 'price elasticity', in economic terms.

Table 2

Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of the Airport in 2019

No Land Lease Rental Expense	Intrinsic Value (Average of Mean & Median)			Market Value (Average of Mean & Median)		
	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v
Figures in $B.	No Extinguishing of L-T Debt	Extinguishing of 1/4 of L-T Debt	Extinguishing of 1/2 of L-T Debt	No Extinguishing of L-T Debt	Extinguishing of 1/4 of L-T Debt	Extinguishing of 1/2 of L-T Debt
Gross Value (Average of Mean & Median)	$ 0.72	$ 1.55	$ 1.69	$ 1.15	$ 2.33	$ 2.88
Minus Sale of Proceeds Used to Retire Debt	$ 0.00	$ 0.18	$ 0.36	$ 0.00	$ 0.18	$ 0.36
Net Value	$ 0.72	$ 1.37	$ 1.32	$ 1.15	$ 2.15	$ 2.51

Calculations used models incorporating financial results from YWG Annual Reports, key financial statistics from peer companies.

Under these various scenarios, value is maximized according to the intrinsic model when debt is reduced by only one quarter. Using the market comparison method, value increases as debt is reduced. The intrinsic valuation results may be erroneous; serious consideration should be given to reducing the debt load of the airport. The firm's leverage is high, about 90 percent of assets are backed by debt, not equity. Also, consideration should be given to eliminating the counter-productive and self-defeating federal land lease rental expense.

Caveat: this report is nothing approaching a prospectus. Only intensive, meticulously minute appraisal of all of YWG's assets, including its physical assets, all its accounts and hidden assets and liabilities, plus all its contractual, legal and regulatory obligations, would give an accurate valuation of the company, albeit still dependent on subjective reasoning and assumptions. Even then it would not necessarily indicate what magnitude of proceeds could or would be garnered in a divestment. The estimates, projections, observations, or analyses herein are neither definitive nor authoritative. Other analysts may have valid, alternative ways of scrutinizing and valuing WAA.

INTRODUCTION

History of YWG, Its Current State and Operating Status

Winnipeg James Armstrong Richardson International Airport's antecedent is an airfield founded in 1928 by the Winnipeg Flying Club. The first commercial company to use it, Western Canada Airways, began to do so in 1930. A US carrier, Northwest Airways now Northwest Airlines, inaugurated international service the next year. The federal government's new Trans-Canada Airlines made the airport its operational centre in 1936. By 1938, there were three runways, an air traffic control tower and several hangars and buildings. World War II brought more military and civilian activity, and commercial services, including airplane manufacturing. In 1958 the airport was named Winnipeg International Airport. The transfer of control from Ottawa to WAA occurred in 1997, part of the 26-airport National Airport System of federally-linked airports. The airport assumed its current name in 2006, which honours a local pioneer in commercial aviation.[1]

YWG had 4.5 million passengers in 2018, over four thousand cargo flights, and served more than 12,300 passengers per day.[2] An economic impact study completed in 2013 reported the airport contributes almost $3.6B in economic output, supports over 19,400 jobs, and creates wages in excess of $810M.[3]

The near-term economic outlook for Manitoba is rather subdued. The Conference Board of Canada estimates that it will grow at just 0.7 percent in 2020, after 0.9 percent in Canada. Both rates are below the average for Canada as a whole.[4]

On the brighter side and relevant to air travel, flights to Winnipeg increased by 465 percent in 2019, according to the travel site Expedia. Winnipeg is the capital of Manitoba, and has a diverse economy, with many cultural amenities, which could make it more resilient than the province as a whole. It is the largest (nearly 800,000 inhabitants) city for hundreds of kilometres in every direction, and so caters to a large market area with many goods and services, consumer, domestic, and otherwise.[5]

The 'most likely' projection in the master plan is that passenger volumes will continue to grow at an average of 2.9 percent per annum in the 2018-23 period, declining to 2.7 percent in the 2023-28 period, and then 2.3 percent in the 2028-33 period.[6]

There were relatively heavy capital investments in the years 2008-10, inclusive, of over $100M per annum, largely related to a new air terminal building, completed in 2011. Recent annual capital investment expenditures have been in the $20M region, and the incremental nature of the enhancements to existing facilities and instrumentation imply that those expenditures are not likely to escalate, and if they do, that debt financing will be sought to pay for them.[7]

Rent payable to the Government of Canada increased by 9.0 percent to $9.47M in 2018 due to higher revenues. It is projected to be over $10M for 2019 and over $12M by 2023.[8] As at other airports elsewhere in Canada, federal land rental cost is an issue. It raises YWG's costs, which it must recoup from airlines, airport tenants, and the travelling public, lowering its competitiveness versus rivals which do not have to pay the same expense.[9]

Fortunately, YWG faces little direct competition. However in the neighbouring US state of Minnesota, lies Minneapolis International Airport, which is a major hub for the United States and beyond, and it does not have the onerous Canadian federal land lease rental expense.

INTRINSIC VALUE: VALUATION OF YWG AS A BUSINESS, IN ITS CURRENT STATE

For the intrinsic value, projecting future cash flow growth, and bringing it to a net present value, a relatively conservative approach was taken which could undervalue the company (please see Table 1). A simple capitalization perpetuity formula was used, which is appropriate for a mature company with no obvious potential mortality date forecastable. The company's free cash flow nominal (i.e., not adjusted for inflation) growth rate range was held within a restrained 2 to 4 percent range, and the required rate of return or cost of capital range was from 6 to 9 percent.

The entity could theoretically have higher growth in the future, so a modest growth rate was considered reasonable. Its cost of capital, given low expectations, the quality of its assets, and high current valuations in the stock market, could well be lower than the range used (and thus raise its estimated value), although there is also a chance that interest rates and the rate of return investors demand on equity (share) investment could increase.

The statutory tax rate used in calculations may be lower in the future, as there is is continued global pressure to lower corporate tax rates, exemplified by the recent drop in US corporation income tax rates, the slow decrease of rates in Quebec, new cuts in Australia, and a recent more ambitious schedule of decreases announced by the new-ish government in Alberta.

The proprietary model used in projecting the line items that determine the various inputs into the intrinsic value employ calculations based on recent and historic trends in those line items. Then the model uses formulas to project the line item numbers for the following year. All main constituent line-item factors that determine net income, operating and free cash flow were projected on the basis of historic behaviour and mathematical analysis.

Table 3

Intrinsic Value, 2019, Discounted Free Cash Flow of the Entity

METHOD 1: Projected Fully Taxed Free Cash Flow for FY2019 ($B)

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow FY2019 ($B): $ 0.0459

Matrix Values ($B) g==v; r==>	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%
0.00%	$ 0.92	$ 0.76	$ 0.66	$ 0.57	$ 0.51	$ 0.46	$ 0.42
1.00%	$ 1.15	$ 0.92	$ 0.76	$ 0.66	$ 0.57	$ 0.51	$ 0.46
2.00%	$ 1.53	**$ 1.15**	**$ 0.92**	**$ 0.76**	**$ 0.66**	$ 0.57	$ 0.51
3.00%	$ 2.29	**$ 1.53**	**$ 1.15**	**$ 0.92**	**$ 0.76**	$ 0.66	$ 0.57
4.00%	$ 4.59	**$ 2.29**	**$ 1.53**	**$ 1.15**	**$ 0.92**	$ 0.76	$ 0.66
5.00%	–$ --	$ 4.59	$ 2.29	$ 1.53	$ 1.15	$ 0.92	$ 0.76
6.00%	–$ 4.59	–$ --	$ 4.59	$ 2.29	$ 1.53	$ 1.15	$ 0.92
7.00%	–$ 2.29	–$ 4.59	$ --	$ 4.59	$ 2.29	$ 1.53	$ 1.15

	Minimum	Maximum	Median	Mean (Average)
Value ($B)	$ 0.66	$ 2.29	$ 1.03	$ 1.14

Note: 'g' is Growth Rate in Free Cash Flow or Proxy, 'r' is the Required Rate of Return; Bold font figures are used in the Mean, Median, Minimum and Maximum determinations.

MARKET-BASED VALUE: VALUATION OF YWG USING STOCK MARKET AND FINANCIAL METRICS

With respect to the market-peer comparison valuation, there are a few complications. Some of the publicly traded airport companies around the world have either inflated or depressed financial results, and the most extreme anomalies among them had to be deleted. There was still sufficient sample data for reasonable comparative purposes. Please see the details of the models' results in Table 4.

Table 4

Market Valuation Using Financial Metrics from Comparable Companies

Method 2: Winnipeg J.A.R. International Airport Projections are for FY2019; Fully Taxed

Valuation metrics applied to Winnipeg J.A.R. Intl. Airport. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 0.08	$ 2.48	$ 0.31	$ 0.39	$ 0.31	$ 0.15	$ 0.26
Average Nine Port or Port Terminal Operating or Holding Companies	$ 0.34	$ 0.43	$ 0.31	$ 1.16	$ 0.31	$ 2.79	$ 0.39
Average of All Above	$ 0.20	$ 0.52	$ 1.02	$ 1.51	$ 0.31	$ 1.34	$ 0.32

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Market Value Using Comparable Companies and Seven Viable Valuation Ratios

	Minimum	Maximum	Median	Mean (Average)
Market Value ($B)	$ 0.20	$ 1.51	$ 0.52	$ 0.75

Source: Calculations based on YWG Annual Report financial data, comparison company data from Capital IQ via Yahoo!Finance.

As noted in the Executive Summary, using seven standard valuation metrics (trailing and forward Price/Earnings, Price/Sales; Price/Book Value; Enterprise Value to Revenue; Enterprise Value to Earnings Before Interest, Taxes & Depreciation & Amortization [EV/EBITDA]; Price/Operating Cash Flow), the current value ranges from $0.20B to $1.51B, with a median of $0.52B and a mean of $0.75B.

DEBT COSTS; FINANCIAL PERFORMANCE OF YWG, AND TRENDS IN SAME

The financial return ratios are also generally lower than the weighted average interest rates of 4.15 percent that the firm is paying on the debt it is borrowing. Please see below.

Table 5

Average Interest Rate on Interest-Bearing Debt (Cost of Debt Capital)

Year Ending 31 December ($M)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Average Total Interest-Bearing Debt	$ 406	$ 558	$ 559	$ 556	$ 600	$ 643	$ 636	$ 627	$ 680	$ 734
Total Interest and Financing Charges Paid	$ 1.16	$ 21.33	$ 29.32	$ 29.06	$ 30.10	$ 32.50	$ 31.01	$ 30.41	$ 31.23	$ 30.42
Average Interest Rate on Interest-Bearing Debt	0.28%	3.82%	5.24%	5.22%	5.01%	5.05%	4.88%	4.85%	4.59%	4.15%

Source: Annual Reports, Company Financial Statements.

As shown in Table 6, below, YWG's returns on equity, and capital employed, have generally improved over the past nine years whether the numerator in the ratios is Earnings Before Interest, Taxes and Depreciation and Amortization (EBITDA); net income; operating cash flow; or free cash flow. However, its return on assets has not improved, which, if it persists, could be a concern.

Table 6

Capital Efficiency Performance Metric

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. RETURN ON ASSETS										
Return on Assets Using EBITDA (Earnings Before Interest, Taxes and Depreciation & Amortization)										
EBITDA ($M)	$ 44	$ 45	$ 44	$ 47	$ 48	$ 52	$ 60	$ 65	$ 65	$ 76
Average Assets ($M)	$ 627	$ 787	$ 802	$ 795	$ 817	$ 839	$ 821	$ 812	$ 863	$ 914
RoA, EBITDA	7.1%	5.7%	5.5%	5.9%	5.9%	6.2%	7.3%	8.0%	7.5%	8.3%
Return on Assets Using Fully Taxed Net Income										
Fully Taxed Net Income ($M)	$ 24.87	$ 23.89	$ 13.09	−$ 12.10	−$ 12.56	−$ 12.08	−$ 7.82	−$ 7.82	−$ 4.72	$ 4.05
Average Assets ($M)	$ 627	$ 787	$ 802	$ 795	$ 817	$ 839	$ 821	$ 812	$ 863	$ 914
RoA, NI	3.97%	3.04%	1.63%	−1.52%	−1.54%	−1.44%	−0.95%	−0.96%	−0.55%	0.44%
Return on Assets Using Fully Taxed Operating Cash Flow										
Fully Taxed Operating Cash Flow ($M)	$ 27.33	$ 17.84	$ 14.82	$ 8.96	$ 19.93	$ 19.45	$ 29.23	$ 38.05	$ 27.17	$ 26.61
Average Assets ($M)	$ 627	$ 787	$ 802	$ 795	$ 817	$ 839	$ 821	$ 812	$ 863	$ 914
RoA, OCF	4.36%	2.27%	1.85%	1.13%	2.44%	2.32%	3.56%	4.69%	3.15%	2.91%
Return on Assets Using Fully Taxed Free Cash Flow										
Fully Taxed Free Cash Flow ($M)	$ 29.02	$ 17.85	$ 22.35	$ 16.13	$ 19.96	$ 29.53	$ 30.71	$ 41.85	$ 27.88	$ 36.97
Average Assets ($M)	$ 627	$ 787	$ 802	$ 795	$ 817	$ 839	$ 821	$ 812	$ 863	$ 914
RoA, FCF	4.63%	2.27%	2.79%	2.03%	2.44%	3.52%	3.74%	5.15%	3.23%	4.05%
2. RETURN ON EQUITY										
Return on Equity Using EBITDA (Earnings Before Interest, Taxes and Depreciation & Amortization)										
EBITDA ($M)	$ 44	$ 45	$ 44	$ 47	$ 48	$ 52	$ 60	$ 65	$ 65	$ 76
Average Equity ($M)	$ 139	$ 177	$ 196	$ 199	$ 186	$ 173	$ 159	$ 153	$ 147	$ 149
RoE, EBITDA	31.9%	25.4%	22.6%	23.5%	25.9%	30.1%	37.6%	42.2%	44.1%	50.8%
Return on Equity Using Fully Taxed Net Income										
Fully Taxed Net Income ($M)	$ 24.87	$ 23.89	$ 13.09	−$ 12.10	−$ 12.56	−$ 12.08	−$ 7.82	−$ 7.82	−$ 4.72	$ 4.05
Average Equity ($M)	$ 139	$ 177	$ 196	$ 199	$ 186	$ 173	$ 159	$ 153	$ 147	$ 149
RoE, NI	17.88%	13.48%	6.66%	−6.09%	−6.74%	−6.98%	−4.91%	−5.11%	−3.20%	2.71%
Return on Equity Using Fully Taxed Operating Cash Flow										
Fully Taxed Operating Cash Flow ($M)	$ 27.33	$ 17.84	$ 14.82	$ 8.96	$ 19.93	$ 19.45	$ 29.23	$ 38.05	$ 27.17	$ 26.61
Average Equity ($M)	$ 139	$ 177	$ 196	$ 199	$ 186	$ 173	$ 159	$ 153	$ 147	$ 149
RoE, OCF	19.6%	10.1%	7.5%	4.5%	10.7%	11.3%	18.3%	24.8%	18.4%	17.8%
Return on Equity Using Fully Taxed Free Cash Flow										
Fully Taxed Free Cash Flow ($M)	$ 29.02	$ 17.85	$ 22.35	$ 16.13	$ 19.96	$ 29.53	$ 30.71	$ 41.85	$ 27.88	$ 36.97
Average Equity ($M)	$ 139	$ 177	$ 196	$ 199	$ 186	$ 173	$ 159	$ 153	$ 147	$ 149
RoE, FCF	20.81%	10.07%	11.38%	8.12%	10.71%	17.07%	19.28%	27.33%	18.92%	24.74%
3. RETURN ON CAPITAL EMPLOYED (Cash, Restricted Cash and Short Term Investments were subtracted from Total Liabilities + Shareholders Equity)										
Return on Capital Employed Using EBITDA (Earnings Before Interest, Taxes and Depreciation & Amortization)										
EBITDA ($M)	$ 44	$ 45	$ 44	$ 47	$ 48	$ 52	$ 60	$ 65	$ 65	$ 76
Average Capital Employed ($M)	$ 620	$ 750	$ 753	$ 777	$ 797	$ 810	$ 792	$ 774	$ 827	$ 881
RoCE, EBITDA	7.17%	6.00%	5.90%	6.00%	6.06%	6.43%	7.57%	8.35%	7.85%	8.62%
Return on Capital Employed Using Fully Taxed Net Income										
Fully Taxed Net Income ($M)	$ 24.87	$ 23.89	$ 13.09	−$ 12.10	−$ 12.56	−$ 12.08	−$ 7.82	−$ 7.82	−$ 4.72	$ 4.05
Average Capital Employed ($M)	$ 620	$ 750	$ 753	$ 777	$ 797	$ 810	$ 792	$ 774	$ 827	$ 881
RoCE, NI	4.01%	3.18%	1.74%	−1.56%	−1.58%	−1.48%	−0.99%	−1.01%	−0.57%	0.46%
Return on Capital Employed Using Fully Taxed Operating Cash Flow										
Fully Taxed Operating Cash Flow ($M)	$ 27.33	$ 17.84	$ 14.82	$ 8.96	$ 19.93	$ 19.45	$ 29.23	$ 38.05	$ 27.17	$ 26.61
Average Capital Employed ($M)	$ 620	$ 750	$ 753	$ 777	$ 797	$ 810	$ 792	$ 774	$ 827	$ 881
RoCE, OCF	4.40%	2.38%	1.97%	1.15%	2.50%	2.40%	3.69%	4.91%	3.29%	3.02%
Return on Capital Employed Using Fully Taxed Free Cash Flow										
Fully Taxed Free Cash Flow ($M)	$ 29.02	$ 17.85	$ 22.35	$ 16.13	$ 19.96	$ 29.53	$ 30.71	$ 41.85	$ 27.88	$ 36.97
Average Capital Employed ($M)	$ 620	$ 750	$ 753	$ 777	$ 797	$ 810	$ 792	$ 774	$ 827	$ 881
RoCE, FCF	4.68%	2.38%	2.97%	2.08%	2.50%	3.65%	3.88%	5.40%	3.37%	4.20%

Source: Company Financial Statements. Taxes were calculated using current federal and provincial rates applied retroactively for comparability.

As the following table shows, the ratios of debt to equity, total debt to EBITDA, and the growth rate of debt divided by the growth in EBITDA have generally all shown negative trends. However, its debt servicing capacity, denoted by EBITDA divided by finance charges plus capital expenditures; and by pre-tax operating cash flow divided by net finance charges, is generally improving.

Table 7

Solvency, Interest Coverage, Capital Expenditure Coverage

Financial Strength and Solvency ('Equity' is 'Net Assets')	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Debt/Equity	334%	359%	330%	288%	313%	366%	407%	424%	437%	537%
Debt/Total Assets	77%	78%	77%	74%	76%	79%	80%	81%	81%	84%
Debt/Total Capital Employed	78%	84%	77%	77%	82%	83%	84%	86%	87%	87%
EBITDA/Finance Charges	3,851%	211%	152%	160%	161%	160%	193%	213%	208%	250%
EBITDA/Finance Charges+Capex	−8,254%	211%	204%	213%	161%	232%	203%	243%	213%	379%
Quick Ratio ({Current Assets − Inventories}/Current Liabilities)	29%	167%	94%	51%	150%	127%	124%	130%	149%	124%
Quick Ratio Excluding "Restricted Cash"	29%	167%	94%	51%	150%	127%	124%	130%	149%	124%
EBITDA/Net Interest Paid	3,851%	211%	152%	160%	161%	160%	193%	213%	208%	250%
Pre-Tax Operating Cash Flow/Net Interest Paid	2,366%	84%	51%	31%	66%	60%	94%	125%	87%	87%
Total Debt/EBITDA	1,364%	1,362%	1,345%	1,276%	1,383%	1,274%	1,100%	1,019%	1,190%	995%
Growth in Debt/Growth in EBITDA	3,123%	88%	206%	−10%	337%	−7%	−5%	−2%	3,750%	−13%

Source: Company Financial Statements. Debt and Equity are the year-end values. Taxes were calculated using current federal and provincial rates applied retroactively for comparability.

STRATEGIES AND ALTERNATIVES FOR COMMERCIALIZATION, DIVESTITURE OR PRIVATIZATION

1. PARTIAL DIVESTMENT

Quite often when a state-owned enterprise is divested or privatized, it is not done entirely at once. This is because it may not be possible to sell the whole company into the stock market and get the maximum price for the seller, especially if the firm has assets in the billions of dollars, or if there are unusual aspects to the nature of the company, or problematic circumstances in which it operates. Hence, an initial, small minority allotment of shares are sold to help establish at least a crude market valuation of the company's shares as they become openly traded.

However, having a majority stake retained by a government introduces some doubt about the true independence and commercial status of the partially divested firm. There could be fear on the part of investors that politicians may interfere with the strategy or operations of the firm. This could result in there being a discount that the firm's shares suffer in the market. While there are no current signs of government meddling or public controversies, various 'stakeholders' may intervene, which potentially or theoretically can complicate partial or total sale of the operation.

Selling part or all of YWG, with much of the proceeds used to reduce the debt, would make it healthier, and allow it to fetch a higher price upon its sale. A couple of different scenarios were explored. For reference, the three scenarios are laid out in the simple table below.

Table 8

3 Cases: Debt Level As Is; One Quarter of Long-Term Debt Gone; Half of Long-Term Debt Retired

Retirement of Debt Scenarios Assumed to Occur in Fiscal Year 2019.
Note: The assumption was made that no other Net Debt Addition or Redemption would occur in 2019.

All figures $B	Current: No Debt Retirement	Case 1 One Quarter Long-Term Debt Retired	Case 2 Half Long-Term Debt Retired
Total Liabilities	$ 0.7553	$ 0.5729	$ 0.3905
Total Assets	$ 0.9104	$ 0.9372	$ 0.9372
Shareholders Equity	$ 0.1551	$ 0.3958	$ 0.5789
Total Interest-Bearing Debt	$ 0.7296	$ 0.5472	$ 0.3648
Total Interest Expenses	$ 0.0304	$ 0.0235	$ 0.0157
EBITDA	$ 0.0759	$ 0.0805	$ 0.0805
EBIT	$ 0.0459	$ 0.0458	$ 0.0458
Interest Income	$ 0.0000	$ 0.0000	$ 0.0000
Interest Expense	$ 0.0030	$ 0.0026	$ 0.0017
Pre-Tax Income	$ 0.0429	$ 0.0432	$ 0.0441
Income Tax (Combined 26%)	$ 0.0116	$ 0.0117	$ 0.0119
Net Income	$ 0.0313	$ 0.0315	$ 0.0322
Operating Cash Flow	$ 0.0266	$ 0.0697	$ 0.0704
Capital Expenditures	–$ 0.0104	–$ 0.0192	–$ 0.0192
Free Cash Flow	$ 0.0162	$ 0.0506	$ 0.0512

ALTERNATIVE SCENARIO 1:
One Quarter Long-Term Debt Retired; Proceeds Net of Debt Paid Back

Table 9

Intrinsic Value, One Quarter of Long-Term Debt Extinguished

CASE 1: Present Value of Discounted Free Cash Flow for FY2019 ($B); One Quarter of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return [‘r’] = Growth Rate [‘g’])

Projected Fully Free Cash Flow for FY2019 ($B): $ 0.0506

Matrix Values ($B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	$ 1.26	$ 1.01	$ 0.84	$ 0.72	$ 0.63	$ 0.56	$ 0.51
1.00%	$ 1.69	$ 1.26	$ 1.01	$ 0.84	$ 0.72	$ 0.63	$ 0.56
2.00%	$ 2.53	$ 1.69	**$ 1.26**	**$ 1.01**	**$ 0.84**	**$ 0.72**	$ 0.63
3.00%	$ 5.06	$ 2.53	**$ 1.69**	**$ 1.26**	**$ 1.01**	**$ 0.84**	$ 0.72
4.00%	--	$ 5.06	**$ 2.53**	**$ 1.69**	**$ 1.26**	**$ 1.01**	$ 0.84
5.00%	–$ 5.06	--	$ 5.06	$ 2.53	$ 1.69	$ 1.26	$ 1.01
6.00%	–$ 2.53	–$ 5.06	$ --	$ 5.06	$ 2.53	$ 1.69	$ 1.26
7.00%	–$ 1.69	–$ 2.53	–$ 5.06	$ --	$ 5.06	$ 2.53	$ 1.69

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.72	$ 2.53	$ 1.14	$ 1.26
Minus Sale Proceeds Used to Retire One Quarter Long-Term Debt	$ 0.18	$ 0.18	$ 0.18	$ 0.18
Net Value ($B)	$ 0.54	$ 2.35	$ 0.96	$ 1.08

Source: Calculations from model derived from Company Annual Reports.

This Scenario One for the intrinsic value yields (net of the amount of proceeds used to extinguish one quarter of the firm’s long-term debt) a minimum of $0.54B to a maximum of $2.35B, with a more plausible range of a median (midpoint of the array of projected values) of $0.96B to a mean (simple average) of $1.08B. Again, this second, narrow range, does not indicate any great precision or certainty.

One Quarter Long-Term Debt Retired; Proceeds Net of Debt Paid Back

Table 10

Market Value, One Quarter of Long-Term Debt Extinguished; Net Proceeds

CASE 1: Winnipeg J.A.R. International Airport Projections are for FY2019; Fully Taxed, Debt Free

Valuation metrics applied to YWG ie, Market Value of Common Equity. 1/4 L-T Debt Ext. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 0.57	$ 0.49	$ 1.35	$ 6.32	$ 0.45	$ 0.34	$ 0.64
Average Nine Port or Port Terminal Operating or Holding Companies	$ 2.06	$ 1.45	$ 0.63	$ 1.01	$ 0.49	$ 3.41	$ 0.87
Average of All Above	$ 1.55	$ 0.65	$ 1.09	$ 3.85	$ 0.39	$ 1.70	$ 0.84

Market Value Using Comparable Companies and Six Viable Valuation Ratios

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.39	$ 3.85	$ 1.09	$ 1.44
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt ($B)	$ 0.18	$ 0.18	$ 0.18	$ 0.18
Total Market Value ($B)	$ 0.21	$ 3.67	$ 0.91	$ 1.26

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

This Alternative Scenario One for the market value method yields (net of the amount of proceeds used to extinguish one quarter of the firm's long-term debt) a minimum of $21M to a maximum of $3.67B, with a more plausible range of a median (midpoint of the array of projected values) of $0.91B to a mean (simple average) of $1.26B.

ALTERNATIVE SCENARIO 2:
One Half Long-Term Debt Retired; Proceeds Net of Debt Paid Back

Table 11

Intrinsic Value, One Half of Long-Term Debt Extinguished; Net Proceeds

CASE 2: Present Value of Projected Fully Taxed Free Cash Flow for FY2019 ($B); Half of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow for FY2019 ($B): $ 0.0512

Matrix Values ($B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	$ 1.28	$ 1.02	$ 0.85	$ 0.73	$ 0.64	$ 0.57	$ 0.51
1.00%	$ 1.71	$ 1.28	$ 1.02	$ 0.85	$ 0.73	$ 0.64	$ 0.57
2.00%	$ 2.56	$ 1.71	**$ 1.28**	**$ 1.02**	**$ 0.85**	**$ 0.73**	$ 0.64
3.00%	$ 5.12	$ 2.56	**$ 1.71**	**$ 1.28**	**$ 1.02**	**$ 0.85**	$ 0.73
4.00%	--	$ 5.12	**$ 2.56**	**$ 1.71**	**$ 1.28**	**$ 1.02**	$ 0.85
5.00%	–$ 5.12	--	$ 5.12	$ 2.56	$ 1.71	$ 1.28	$ 1.02
6.00%	–$ 2.56	–$ 5.12	$ --	$ 5.12	$ 2.56	$ 1.71	$ 1.28
7.00%	–$ 1.71	–$ 2.56	–$ 5.12	$ --	$ 5.12	$ 2.56	$ 1.71

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.73	$ 2.56	$ 1.15	$ 1.28
Minus Sale Proceeds Used to Retire Half Long-Term Debt	$ 0.36	$ 0.36	$ 0.36	$ 0.36
Net Value ($B)	$ 0.37	$ 2.20	$ 0.79	$ 0.91

Source: Calculations from model derived from Company Annual Reports.

This Alternative Scenario Two yields (net of the amount of proceeds used to extinguish one half of the firm's long-term debt) a minimum of $37M to a maximum of $2.20B, with a more plausible range of a median (midpoint of the array of projected values) of $0.79B to a mean (simple average) of $0.91B.

Table 12

Market Value, One Half of Long-Term Debt Extinguished; Net Proceeds

CASE 2: Winnipeg J.A.R. International Airport Projections are for FY2019; Fully Taxed, Debt Free

Valuation metrics applied to YWG ie, Market Value of Common Equity. 1/2 L-T Debt Ext. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 5.46	$ 0.50	$ 1.35	$ 9.25	$ 0.55	$ 0.43	$ 11.33
Average Nine Port or Port Terminal Operating or Holding Companies	$ 2.10	$ 1.48	$ 0.63	$ 1.47	$ 0.58	$ 3.50	$ 0.88
Average of All Above	$ 3.84	$ 0.66	$ 1.08	$ 5.79	$ 0.66	$ 1.78	$ 6.39

Market Value Using Comparable Companies and Five Viable Valuation Ratios

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.66	$ 6.39	$ 1.78	$ 2.89
Minus Proceeds of Sale Used to Extinguish 1/2 Long-Term Debt ($B)	$ 0.36	$ 0.36	$ 0.36	$ 0.36
Total Market Value ($B)	$ 0.30	$ 6.03	$ 1.42	$ 2.52

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

This Alternative Scenario Two for the market value method yields (net of the amount of proceeds used to extinguish one half of the firm's long-term debt) a minimum of $0.30M to a maximum of $6.03B, with a more plausible range of a median (midpoint of the array of projected values) of $1.42B to a mean (simple average) of $2.52B.

For easier comparison, the three cases are presented together in the following table:

Table 13

Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of the Company in 2019

Airport continues paying Federal Land Lease expense	Intrinsic Value (Average of Mean & Median)			Market Value (Average of Mean & Median)		
	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v
Figures in $B.	**No Extinguishing of L-T Debt**	**Extinguishing of 1/4 of L-T Debt**	**Extinguishing of 1/2 of L-T Debt**	**No Extinguishing of L-T Debt**	**Extinguishing of 1/4 of L-T Debt**	**Extinguishing of 1/2 of L-T Debt**
Gross Value (Average of Mean & Median)	$ 0.88	$ 1.20	$ 1.21	$ 0.63	$ 1.27	$ 2.33
Minus Sale of Proceeds Used to Retire Debt	$ 0.00	$ 0.18	$ 0.36	$ 0.00	$ 0.18	$ 0.36
Net Value	$ 0.88	$ 1.02	$ 0.85	$ 0.63	$ 1.08	$ 1.97

Calculations used models incorporating financial results from Company Annual Reports, key financial statistics from peer companies.

It is not clear from the intrinsic value method how much long-term debt should be retired, but the market value method shows that the more the better. More sophisticated sensitivity analysis could determine an optimum amount; a higher amount of debt reduction was not explored here. Generally, the lower the debt, the more attractive and salable the company will be, which may be something that cannot be shown in any of the analyses above. It seems to intuitively be reasonable to eliminate as much as one quarter of its long-term debt; perhaps more – much more.

ALTERNATIVE SCENARIO 3:
No Federal Land Rental Expense; Half of Savings Lower Airline Fees

As the federal land lease rental expense is one unnecessary cost raising YWG's cost of doing business, lowering its competitiveness, and consequently lowering its potential valuation, an additional three experiments were conducted: removal of the expense, and the assumption that YWG would lower its landing fees by one half of the expense saved. As demand for air travel and cargo services is price elastic, calculated values for that price elasticity were used to determine a potential net effect on revenue: just a slight reduction, it turns out, as demand increases to make up some of the 'loss' from lowering prices.

Table 14

Three Cases: Debt Level As Is; and One Quarter, then Half of Long-Term Debt Gone ($B)

Price Elasticity of Air Fares: **Study 1: Roughly −0.45** Source: https://partners.skyscanner.net/price-elasticity-a-long-haul-low-cost-opportunity-awaits/thought-leadership
Study 2: Roughly −1.1 Source: https://fin.gc.ca/consultresp/airtravel/airtravstdy_1-eng.asp
Average: −0.775

All figures $B	**2019 Base Case: No Debt Retirement** Landing and Terminal Fees are reduced by 1/2 the saving of land lease cost; revenue partially recovers as more activity is generated, calculated using elasticity of demand	**Case 1: Retirement of 1/4 L-T Debt** Landing and Terminal Fees are reduced by 1/2 the saving of land lease cost; revenue partially recovers as more activity is generated, calculated using elasticity of demand	**Case 2: Retirement of 1/2 L-T Debt**
Change in Revenue	−$ 0.006 Note: Using price elasticity of demand, above, assuming half of cost elimination used to reduce fees to airlines.	−$ 0.006	−$ 0.006
Change in Expenses	$ 0.010 (No land lease)	$ 0.010 (No land lease)	$ 0.010
Total Liabilities	$ 0.755	$ 0.573	$ 0.391
Total Assets	$ 0.910	$ 0.910	$ 0.910
Shareholders Equity	$ 0.169	$ 0.357	$ 0.545
Total Interest-Bearing Debt	$ 0.730	$ 0.547	$ 0.365
Total Interest Expenses	$ 0.031	$ 0.023	$ 0.016
EBITDA	$ 0.080	$ 0.085	$ 0.085
EBIT	$ 0.050	$ 0.050	$ 0.050
Interest Income	$ 0.000	$ 0.000	$ 0.000
Interest Expense	$ 0.031	$ 0.023	$ 0.016
Pre-Tax Income	$ 0.019	$ 0.027	$ 0.035
Income Tax (Combined 26.6%)	$ 0.005	$ 0.007	$ 0.009
Net Income	$ 0.014	$ 0.020	$ 0.026
Operating Cash Flow	$ 0.062	$ 0.068	$ 0.074
Capital Expenditures	−$ 0.019	−$ 0.019	−$ 0.019
Free Cash Flow	$ 0.043	$ 0.049	$ 0.055

Source: Company Financial Statements. Taxes were calculated using current federal and provincial rates applied retroactively for comparability.

ALTERNATIVE SCENARIO 4:
No Federal Land Rental Expense; No Debt Reduction; Half of Rent Savings Cut Landing Fees; Revenue Loss Mitigated by Higher Demand at Lower Price

Table 15

Intrinsic Value, Net Income as Proxy for FCF; Land Rent Removed; Debt Stays

Method 1: Intrinsic Value, or Value as a Free Cash Flow-Generating Business

Net Income as a Proxy for Free Cash Flow for FY2019, from projection calculated above ($B): $ 0.059

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

No Debt Reduction. Projected Fully Taxed Net Income as a Proxy for Free Cash Flow for FY2019 ($B): $ 0.059 (No land lease expense, thus increasing Gross Income)

Matrix Values ($B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	$ 1.49	$ 1.19	$ 0.99	$ 0.85	$ 0.74	$ 0.66	$ 0.59
1.00%	$ 1.98	$ 1.49	$ 1.19	$ 0.99	$ 0.85	$ 0.74	$ 0.66
2.00%	$ 2.97	$ 1.98	**$ 1.49**	**$ 1.19**	**$ 0.99**	**$ 0.85**	$ 0.74
3.00%	$ 5.95	$ 2.97	**$ 1.98**	**$ 1.49**	**$ 1.19**	**$ 0.99**	$ 0.85
4.00%	--	$ 5.95	**$ 2.97**	**$ 1.98**	**$ 1.49**	**$ 1.19**	$ 0.99
5.00%	-$ 5.95	--	$ 5.95	$ 2.97	$ 1.98	$ 1.49	$ 1.19
6.00%	-$ 2.97	-$ 5.95	$ --	$ 5.95	$ 2.97	$ 1.98	$ 1.49
7.00%	-$ 1.98	-$ 2.97	-$ 5.95	$ --	$ 5.95	$ 2.97	$ 1.98

	Minimum	Maximum	Median	Mean (Average)
Value ($B)	$ 0.85	$ 2.97	$ 1.34	$ 1.48

Source: Calculations from model derived from Company Annual Reports.

Using this method, the calculations estimate a minimum of $0.85 billion (up from $0.66B from the base case of no change to land lease cost) to a maximum of $2.97B (versus $0.99B) billion, with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.34B (up from $1.03B) to a mean (simple average of all relevant values) of $1.48B (versus $1.14B). Eliminating the land rent expense dramatically improves the airport's valuation.

Table 16

Market Value, Next Fiscal Year, Land Rent Removed from Expenses

Method 2: Market Value, Using Financial Metrics from Comparable Companies

Winnipeg J.A.R. International Airport Projections are for FY2019, Fully taxed; no land lease expense.

Valuation metrics applied to Winnipeg J.A.R. International Airport. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 0.64	$ 2.96	$ 1.06	$ 0.47	$ 1.06	$ 0.31	$ 0.77
Average Nine Port or Port Terminal Operating or Holding Companies	$ 2.54	$ 0.51	$ 1.06	$ 1.40	$ 1.06	$ 3.27	$ 1.17
Average of All Above	$ 1.50	$ 0.63	$ 1.05	$ 1.80	$ 1.06	$ 1.64	$ 0.95

Market Value Using Comparable Companies and Seven Viable Valuation Ratios

	Minimum	Maximum	Median	Mean (Average)
Value ($B)	$ 0.63	$ 1.80	$ 1.06	$ 1.23

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Using this method, the calculations estimate a minimum of $0.63B (up from $0.20B from the base case of no change to land lease cost) to a maximum of $1.80B (versus $1.51B), with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.06B (up from $0.52B) to a mean (simple average of all relevant values) of $1.23B (versus $0.75B). Again, eliminating the land rent expense improves the airport's valuation.

ALTERNATIVE SCENARIO 5:
No Federal Land Rental Expense; One Quarter Debt Eliminated

Table 17

Intrinsic Value, No Land Rent Expense, One Quarter Debt Eliminated

Method 1: Present Value, of Projected Fully Taxed Free Cash Flow for FY2019, One Quarter of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return [‘r’] = Growth Rate [‘g’])

Projected Fully Taxed Net Income as a Proxy for Free Cash Flow for FY2019 ($B): $ 0.0653

Matrix Values ($B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	$ 1.63	$ 1.31	$ 1.09	$ 0.93	$ 0.82	$ 0.73	$ 0.63
1.00%	$ 2.18	$ 1.63	$ 1.31	$ 1.09	$ 0.93	$ 0.82	$ 0.73
2.00%	$ 3.26	$ 2.18	**$ 1.63**	**$ 0.31**	**$ 1.09**	**$ 0.93**	$ 0.82
3.00%	$ 6.53	$ 3.26	**$ 2.18**	**$ 1.63**	**$ 0.31**	**$ 1.09**	$ 0.93
4.00%	--	$ 6.53	**$ 3.26**	**$ 2.18**	**$ 1.63**	**$ 0.31**	$ 1.09
5.00%	–$ 6.53	--	$ 6.53	$ 3.26	$ 2.18	$ 1.63	$ 0.31
6.00%	–$ 3.26	–$ 6.53	$ --	$ 6.53	$ 3.26	$ 2.18	$ 1.63
7.00%	–$ 2.18	–$ 3.26	–$ 6.53	$ --	$ 6.53	$ 3.26	$ 2.18

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.93	$ 3.26	$ 1.47	$ 1.63
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt ($B)	$ 0.18	$ 0.18	$ 0.18	$ 0.18
Net Value ($B)	$ 0.75	$ 3.08	$ 1.29	$ 1.45

Source: Calculations from model derived from Company Annual Reports.

Using this method, the calculations estimate a minimum of $0.75B (up from $0.54B from the base case of no change to land lease cost and one quarter debt reduction) to a maximum of $3.08B (versus $2.35B) with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.29B (up from $0.45B) to a mean (simple average of all relevant values) of $1.45B (versus $0.51B) Eliminating the land rent expense again dramatically improves the airport’s valuation.

Table 18

Market Value, No Land Rent Expense; One Quarter Debt Eliminated

Method 2: Market Value, Using Financial Metrics from Comparable Companies

Winnipeg J.A.R. International Airport Projections are for FY2019, Fully taxed; No land lease expense.

Valuation metrics applied to Winnipeg J.A.R. Intl. Airport; ie., Market Value of Common Equity. 1/4 L-T Debt Retired. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 6.16	$ 0.56	$ 1.30	$ 5.97	$ 0.43	$ 0.40	$ 13.59
Average Nine Port or Port Terminal Operating or Holding Companies	$ 2.37	$ 1.67	$ 0.61	$ 0.95	$ 0.47	$ 3.64	$ 1.06
Average of All Above	$ 4.53	$ 0.75	$ 1.05	$ 3.63	$ 0.59	$ 1.83	$ 7.43

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.59	$ 7.43	$ 1.83	$ 2.83
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt ($B)	$ 0.18	$ 0.18	$ 0.18	$ 0.18
Net Market Value ($B)	$ 0.41	$ 7.25	$ 1.65	$ 2.65

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Using this method, the calculations estimate a minimum of $0.38B (up from $0.08B from the base case of no change to land lease cost and one quarter of interest-bearing debt eliminated) to a maximum of $6.94B (versus $5.58B), with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.49B (up from $1.01B) to a mean (simple average of all relevant values) of $2.17B (versus $1.53B). Again, eliminating the land rent expense generally improves the airport's valuation.

ALTERNATIVE SCENARIO 6:
No Federal Land Rental Expense; One Half Debt Eliminated

Table 19

Intrinsic Value, No Land Rent Expense, One Half Debt Eliminated

Method 1: Present Value, of Projected Fully Taxed Free Cash Flow for FY2019, One Half of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow for FY2019 ($B): $ 0.0711

Matrix Values ($B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	$ 1.78	$ 1.42	$ 1.18	$ 1.02	$ 0.89	$ 0.79	$ 0.71
1.00%	$ 2.37	$ 1.78	$ 1.42	$ 1.18	$ 1.02	$ 0.89	$ 0.79
2.00%	$ 3.55	$ 2.37	**$ 1.78**	**$ 1.42**	**$ 1.18**	**$ 1.02**	$ 0.89
3.00%	$ 7.11	$ 3.55	**$ 2.37**	**$ 1.78**	**$ 1.42**	**$ 1.18**	$ 1.02
4.00%	--	$ 7.11	**$ 3.55**	**$ 2.37**	**$ 1.78**	**$ 1.42**	$ 1.18
5.00%	-$ 7.11	--	$ 7.11	$ 3.55	$ 2.37	$ 1.78	$ 1.42
6.00%	-$ 3.55	-$ 7.11	$ --	$ 7.11	$ 3.55	$ 2.37	$ 1.78
7.00%	-$ 2.37	-$ 3.55	-$ 7.11	$ --	$ 7.11	$ 3.55	$ 2.37

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 1.02	$ 3.55	$ 1.60	$ 1.77
Minus Proceeds of Sale Used to Extinguish 1/2 Long-Term Debt ($B)	$ 0.36	$ 0.36	$ 0.36	$ 0.36
Net Value ($B)	$ 0.65	$ 3.19	$ 1.23	$ 1.41

Source: Calculations from model derived from Company Annual Reports.

Using this method, the calculations estimate a minimum of $0.65B (up from $0.37B from the base case of no change to land lease cost and one half of interest-bearing debt eliminated) to a maximum of $3.19B (versus $2.20B), with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.23B (up from $0.79B) to a mean (simple average of all relevant values) of $1.41B (versus $0.91B). Yet again, eliminating the land rent expense improves the airport's valuation.

Table 20

Market Value, No Land Rent Expense; One Half Debt Eliminated

Method 2: Market Value, Using Financial Metrics from Comparable Companies

Wnnipeg J.A.R. International Airport Projections are for FY2019, Fully taxed; no land lease expense.

Valuation metrics applied to Winnipeg J.A.R. Intl. Airport; ie., Market Value of Common Equity. 1/2 L-T Debt Retired. Figures in $B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow
Average Eleven Airport or Airport Terminal Operating or Holding Companies	$ 6.69	$ 0.65	$ 1.44	$ 8.98	$ 1.15	$ 0.98	$ 13.34
Average Nine Port or Port Terminal Operating or Holding Companies	$ 3.51	$ 1.94	$ 0.74	$ 1.56	$ 1.14	$ 3.93	$ 1.34
Average of All Above	$ 5.26	$ 0.87	$ 1.13	$ 5.46	$ 1.14	$ 2.31	$ 7.94

	Minimum	Maximum	Median	Mean (Average)
Gross Value ($B)	$ 0.87	$ 7.94	$ 2.31	$ 3.44
Minus Proceeds of Sale Used to Extinguish 1/2 Long-Term Debt ($B)	$ 0.36	$ 0.36	$ 0.36	$ 0.36
Net Market Value ($B)	$ 0.50	$ 7.57	$ 1.94	$ 3.08

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.
Note: Intrinsic Values are Fully Taxed Free Cash Flow.

Using this method, the calculations estimate a minimum of $0.50B (up from $0.30B from the base case of no change to land lease cost) to a maximum of $7.57B (versus $6.03B), with a tighter, more plausible range of a median (midpoint of all relevant values) of $1.94B (up from $1.42B) to a mean (simple average of all relevant values) of $3.08B (versus $2.52B). Once more, eliminating the land rent expense dramatically improves the airport's valuation. For easier comparison, the three cases are presented together in the following table:

Table 21

Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of the Company in 2019

	Intrinsic Value (Average of Mean & Median)			Market Value (Average of Mean & Median)		
No Federal Land Lease expense	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v	2019 Valuation=v
Figures in $B.	**No Extinguishing of L-T Debt**	**Extinguishing of 1/4 of L-T Debt**	**Extinguishing of 1/2 of L-T Debt**	**No Extinguishing of L-T Debt**	**Extinguishing of 1/4 of L-T Debt**	**Extinguishing of 1/2 of L-T Debt**
Gross Value (Average of Mean & Median)	$ 0.72	$ 1.55	$ 1.69	$ 1.15	$ 2.33	$ 2.88
Minus Sale of Proceeds Used to Retire Debt	$ 0.00	$ 0.18	$ 0.36	$ 0.00	$ 0.18	$ 0.36
Net Value	$ 0.72	$ 1.37	$ 1.32	$ 1.15	$ 2.15	$ 2.51

Calculations used models incorporating financial results from Company Annual Reports, key financial statistics from peer companies. Note: Intrinsic Values use Fully Taxed Net Income as a Proxy for Free Cash Flow; Free Cash Flow remained negative in *all* three scenarios.

2. DISRUPTIONS FROM EVOLVING COMPETITIVE AND TECHNOLOGICAL FORCES

There is a relatively rosy outlook for global air traffic growth. The International Air Transport Association, 'IATA', projects average annual global compound passenger growth over the next twenty years of 3.5 percent, or a doubling from 2018 levels by 2037, although the North American growth rate is estimated at 2.4 percent.[10]

While the International Air Transport Association and WAA itself are optimistic about the future of air travel and for YWG too, there are some things that could make its future less bright.[11] There could be regional or other wars that make air travel less safe or attractive, and even stop it in some parts of the world. Even an uptick in terrorism could do this. So could exacerbated trade hostilities, or a 'New Cold War' between the West and China, or major disease pandemics.

Improved fast rail travel could dent growth, as could self-driving automobiles, which would make long-distance travel by car less aggravating. Augmented reality, 'AR', and virtual reality, 'VR', could be enhanced to the point where much business, family, and vacation travel could be substituted by those technologies. If one could have a realistic, immersive experience in an exotic or culturally significant place without having to pack luggage or deal with airports or security, AR and VR could be attractive major competitors to many such travel experiences. Already, many personal and professional meetings are avoided by using internet audio-visual meeting services. Air cargo may face threats from not just rail, ship, and trucks, but 3D printing or automated assembly at the point of, or near, the end-user of products, eliminating any need for freight transportation. Draconian 'green' climate change legislation or regulations could restrict air travel, which is CO_2-emission-intensive. There could be suborbital passenger rocket flights.

Finally, we may not be able to discern, at this point, what could make air travel less attractive in the future, any more than railway executives and investors in the 1940's could foresee that widespread automobile ownership, highways and airlines would devastate their passenger business within thirty years' time. These factors are just more reasons why governments should remove themselves from the ownership risks of such assets as airports.

3. READYING YWG FOR SALE

The first thing that needs to be resolved regarding YWG and other Canadian airports is the high rental charges they pay on the land they occupy, which is owned by the federal government. This rental charge adds to their costs, narrowing their margins, and increasing costs to airlines and their passengers. It is also a cost that American airports, their main competitors, do not have. This rental policy also makes little sense, as the government is, effectively, charging it to itself, since the government also owns the airports, YWG included.[12]

Winnipeg is relatively close to a few minor airports in North Dakota, but much farther away from a major airport in Minneapolis-St. Paul, Minnesota. They are not significant competitors but could become so if the cost differential that disadvantages YWG widens further. The ownership or 'stakeholdership' of YWG is unambiguous: it is federal government-owned, ultimately; but WAA seems to be asserting ownership, or at least does so in its own published material.

Infrastructure investments usually pay a dividend to their investors. The airport is showing sufficient income statement accounting-based net income to pay a small dividend but given current modest cash generation and its ambitious capital spending program, investors may not consider the dividend sustainable. So, some investors that like a substantial and growing dividend may not find YWG attractive once the airport's shares are floated, if its Board decides that it cannot currently afford such a dividend. The company has positive free cash flow but less than satisfactory returns on assets, equity and capital employed (please see Table 6). There may need to be operational improvement to expand margins before any equity is sold to the public so that higher value can be realized in any such sale.

The company has a modest capital expenditure program to improve efficiency, incrementally increase capacity and improve operational capability. Hence, constraints on free cash flow growth could remain for an extended period, if YWG cannot raise funds from selling equity.

CONCLUSION

In general, entirely private sector companies tend to perform better than those within the government orbit or ownership. Crown ownership of a company exposes taxpayers, citizens, and even customers and suppliers to the risks of business, economic, and technological trends that are unnecessary to experience; that is what private investors, institutional, individual, or corporate undertake in nearly every sector of the economy. It may not have occurred to anyone in the past that an airport, seaport, or other infrastructure could, would or should be in the hands of private investors, or be ensconced in a publicly listed company. That is not true anymore; there are many such infrastructure companies now, and much more infrastructure that is owned by private equity funds and pension, endowment and sovereign wealth funds. There is a keen appetite for infrastructure investments of all kinds among these private and institutional investors.[13]

Airports have a number of public controversies that make them contentious assets to own. They are expensive to build or expand. They occupy a lot of land, so there are land use and zoning disputes, and it can be hard to expand their operations by, for instance, building a new runway. They generate a lot of noise and vehicular traffic, so there are arguments over their operations and expansion of them.

Independence and removal of the risk of bad governance can only be guaranteed if YWG is totally removed from politicians' clutches; i.e., if it is fully divested to other, private sector investors. There are not a lot of infrastructure investment choices available to individual investors, or even many that pop up for institutional ones. There are only a few airports that are publicly listed, but some of them are quite large or important to their regions or even nations, such as in Tel Aviv, Beijing, Auckland, Sydney, Bangkok, Tokyo, and Frankfurt. Should YWG become one such independent company, whether publicly listed or not, it could be very attractive and successful, with fewer political complications that confront it today. To truly excel and grow, it must be liberated. For citizens to eliminate this risk, it is crucial.

ENDNOTES

1. See https://www.waa.ca/waa/about/history.
2. See https://www.flipsnack.com/WinnipegAirportsAuthority/waa_2018_annual-report.html, p 18.
3. See https://www.waa.ca/uploads/ck/files/YWGMasterPlan0615.pdf, p 5.
4. See https://www.globenewswire.com/news-release/2019/11/26/1952781/0/en/Uneven-provincial-economic-performance-in-store-for-2020.html.
5. See https://www.economicdevelopmentwinnipeg.com/main/newsroom/read,post/857/winnipeg-hits-list-of-top-spots-to-visit-in-2020.
6. See https://www.waa.ca/uploads/ck/files/YWGMasterPlan0615.pdf, p 11.
7. See https://www.waa.ca/uploads/ck/files/AnnualReport/2009_AnnualReport.pdf, p 6; https://www.waa.ca/uploads/ck/files/YWGMaster-Plan0615.pdf; https://www.flipsnack.com/WinnipegAirportsAuthority/waa_2018_annual-report.html, p 20.
8. See https://www.flipsnack.com/WinnipegAirportsAuthority/waa_2018_annual-report.html, p 28.
9. See https://www.iata.org/en/pressroom/pr/2017-10-24-01/.
10. Ibid.
11. Ibid.
12. See https://www.theglobeandmail.com/business/article-the-airline-industry-boom-may-open-the-runway-for-the-government-to/.
13. See https://www.theglobeandmail.com/report-on-business/private-airports-canada-investment/article35881967/; https://www.theglo-beandmail.com/business/international-business/european-business/article-frances-vinci-to-pay-37-billion-to-acquire-majority-stake-in/.

APPENDIX 1:

RATIONALE FOR DIVESTITURE OR PRIVATIZATION

While it is up to the people through their elected representatives to decide if a Crown corporation or other government agency or entity should be sold or otherwise privatized and the proceeds used for the benefit of all citizens and taxpayers, there are some established reasons to embark on such a path, some or all of which are cited for divestiture of such enterprises but may not be applicable in any single, specific case.

1. The government has no mandate to own or run a commercial enterprise. The provision of citizens' safety, security and justice is the government's primary role, and its involvement in the economy should generally not extend beyond this.

2. Regulation can usually accomplish any public policy reason for direct involvement in an industry. If regulation is not easily feasible, then a direct contract or subsidy to any affected individuals, entity or entities may be more efficient or effective and less economically disruptive or costly.

3. If a government-controlled or sponsored enterprise has a monopoly position, near-monopoly, or effective monopoly in a line or lines of business or businesses, then opportunities are lost in one or more commercial or potentially commercial sectors for entrepreneurs and investors to try to create and grow businesses to enrich and sustain themselves, employees, suppliers, and others.

4. A monopoly, near-monopoly, or effective monopoly market position by a government-owned or sponsored entity could result in far higher prices for customers, the general public, or a section of the public, than would be the case in a fully competitive marketplace for the industry involved.

5. A government-owned or -sponsored enterprise may compete directly against private sector firms, which are owned by or employ citizens, or against individual citizens, all of whom the government is supposed to serve, not disadvantage.

6. The government-owned or -sponsored enterprise may compete unfairly against its private sector rivals in that it had or has access to lower-cost government-sourced and -guaranteed capital (debt). It may have a much larger debt component in its capital versus that which would be tolerated in the private sector. Thus, it may not have to meet high standards for profit and cost control, allowing it to offer lower than true free market-based competitive pricing.

7. Government-owned firms may not need to pay provincial or federal income taxes. This can allow such firms to supply goods or services more cheaply than the private sector companies they are competing with.

8. Government-owned or -sponsored enterprises may not have any kind of profit orientation or target, may be used as public policy vehicles and may be given preference in their activities or even in their transgressions, such as labour or environmental abuses.

9. Government-owned or -sponsored enterprises, by virtue of being public sector vehicles overseen by bureaucrats and politicians, may be places where favoured individuals find employment, particularly at management levels.

10. Since profit is a secondary goal of a government-owned or -sponsored enterprise, it is difficult to evaluate the effectiveness, efficiency or productivity of the enterprise or its employees. Consequently, these employees and assets may not be very productive or effective.

11. Government-owned or -sponsored enterprises are often creations of certain time-fixed circumstances and outlive whatever use or public policy role their creators may have conceived. Often, advances in technology; the modernization of transport, telecommunication or information technology; the evolution of the economy and available products and services and the increasing standard of living make these enterprises potentially obsolete. In the private sector, firms and individuals must adapt and evolve, or decline.

12. Government-owned or -sponsored enterprises perpetuate their possibly obsolete existences by virtue of the constituencies that build up around them: employees, managers, directors and bureaucrats, customers, suppliers and associated advocates or consultants. They can lobby to keep the enterprise going, despite dysfunction or losses. They are far more motivated to do so than are the taxpayers, whose average cost is much less per person and may be indirect, hidden or difficult to calculate.

13. Because they are not profit-oriented, government-owned or -sponsored enterprises are usually less efficient, and thus they lower the overall efficiency of the entire economy. This can make a whole nation less competitive than its global rivals are, whether nations or individual companies. The effects are worse the greater the government involvement in the economy. When taken to its most extreme, as happened in 20th-century communist nations, the countries were unable to compete against capitalist companies, despite their immense direct and indirect subsidies, government support and the lack of profit requirement.

14. Funds tied up in the capital of government-owned or -sponsored enterprises could be used to reduce government debt or lower taxes on individuals or corporations, which they could then spend or invest as they freely choose, and thus they could inject money back into the economy in more lucrative and more constructive ways.

15. Governments, generally, have a poor record of picking winners, or creating or owning enterprises that have market-competitive profitability, or attractive returns on assets, equity, or even returns that exceed governments' own cost of debt service. If, rarely, they actually do, it generally turns out that they have been provided unusually good market, operational, regulatory, or other conditions not available to other, investor-owned firms.

16. The greater the number and size of government owned or government sponsored enterprises in an economy, the greater the size and power of the government, which is usually the largest single entity in society, increasing the dangers of abuse of power, including injuring individual citizens, companies, or groups. Effective capacity of opposition or recourse against this power diminishes as the portion of the economy the government occupies increases.


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