

U.S. & Canadian Not-For-Profit Transportation Infrastructure Enterprises Criteria Overview For Airport Sector



ACI-NA Finance Committee Workshop

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Why did S&P Global change its criteria?

CONSOLIDATE CRITERIA

for airport, port, toll road, parking system, airport special facility project, and stand-alone passenger facility charge revenue bond transactions.

INCREASE TRANSPARENCY

of our methodology and assumptions to the marketplace

IMPROVE CONSISTENCY

and forward-looking nature of our ratings

ENHANCE GLOBAL COMPARABILITY

of ratings to other sectors and asset classes

Agenda

- ▶ Rating Methodology Framework
- ▶ An Example
- ▶ Two Airports Recently Assessed
- ▶ Rating Actions Update
- ▶ Questions & Answers

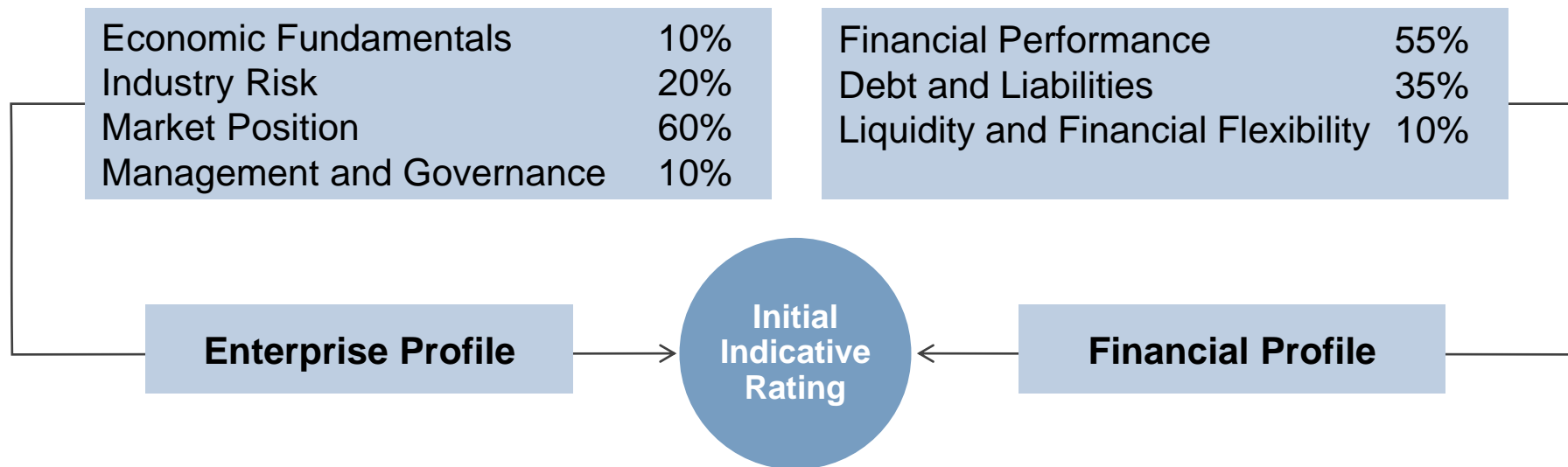
Rating Methodology Framework



Analytical Framework

Chart 1

U.S./Canada Non-For-Profit Transportation Infrastructure Enterprise Criteria Framework



Initial Indicative Rating Determination

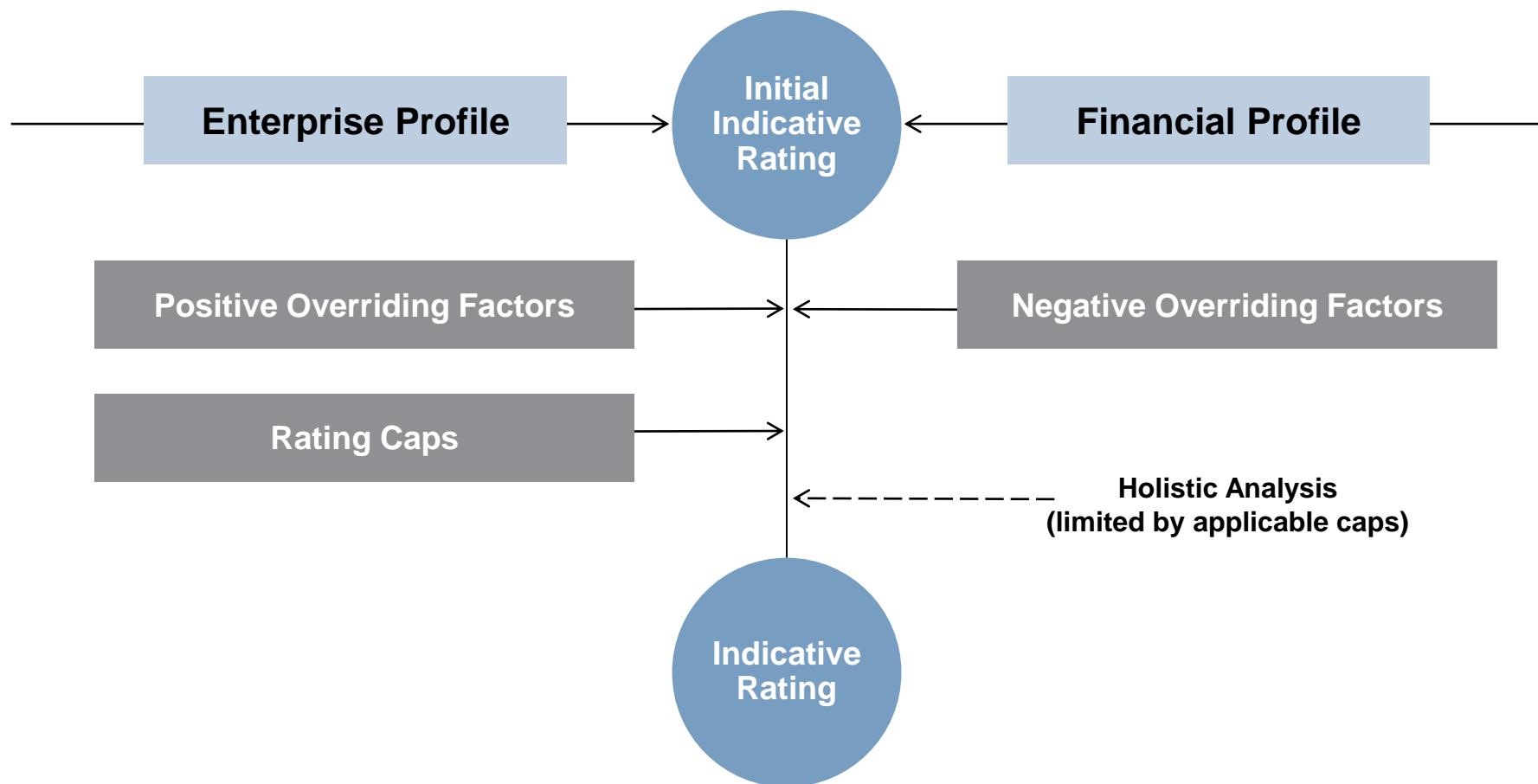
Table 1

Combining The Enterprise And Financial Risk Profiles To Determine The Initial Indicative Rating

Enterprise Risk Profile	Financial Risk Profile					
	1	2	3	4	5	6
	Extremely strong	Very strong	Strong	Adequate	Vulnerable	Highly vulnerable
1 Extremely strong	aaa	aa+	aa-	a	bbb+/bbb	bb+/bb
2 Very strong	aa+	aa/aa-	a+	a-	bbb/bbb-	bb/bb-
3 Strong	aa-	a+	a	bbb+/bbb	bbb-/bb+	bb-
4 Adequate	a	a/a-	a-/bbb+	bbb/bbb-	bb	b+
5 Vulnerable	bbb+	bbb/bbb-	bbb-/bb+	bb	bb-	b
6 Highly Vulnerable	bbb-	bb	bb-	b+	b	b-

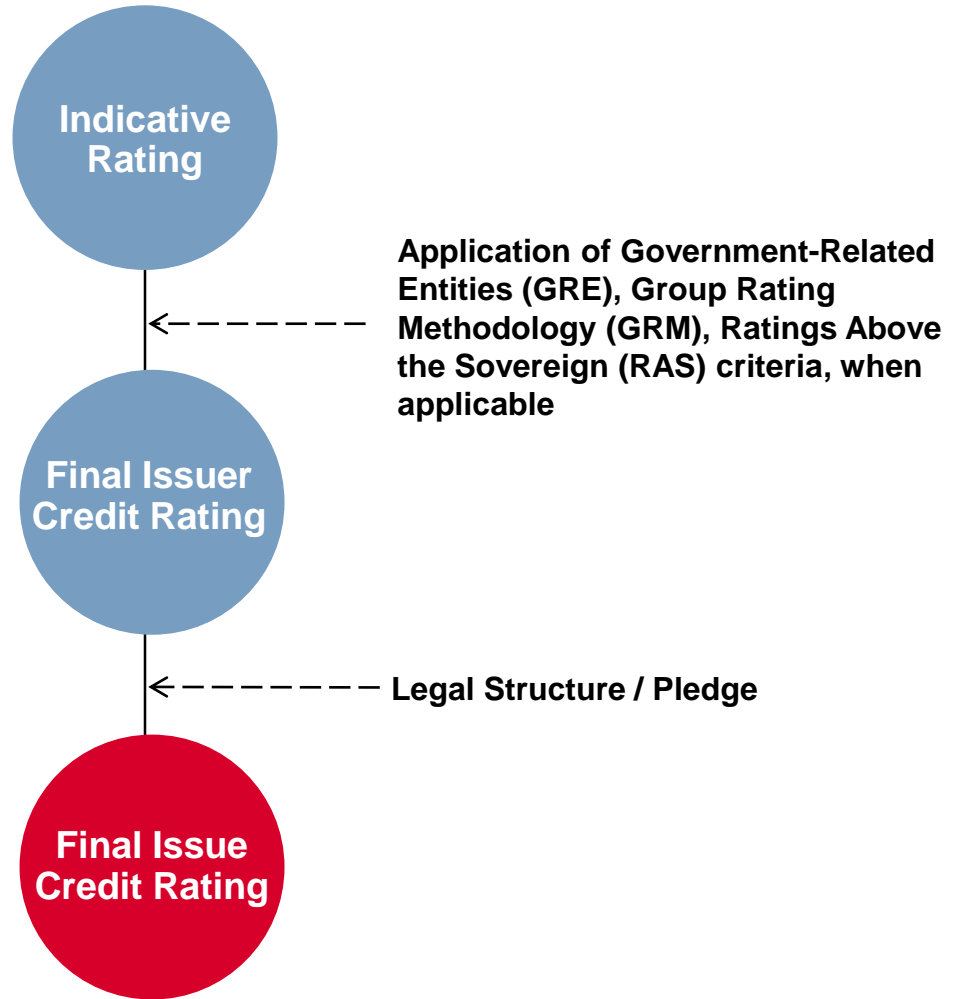
Overriding Factors, Caps, and Holistic Analysis

Chart 1 (continued...)



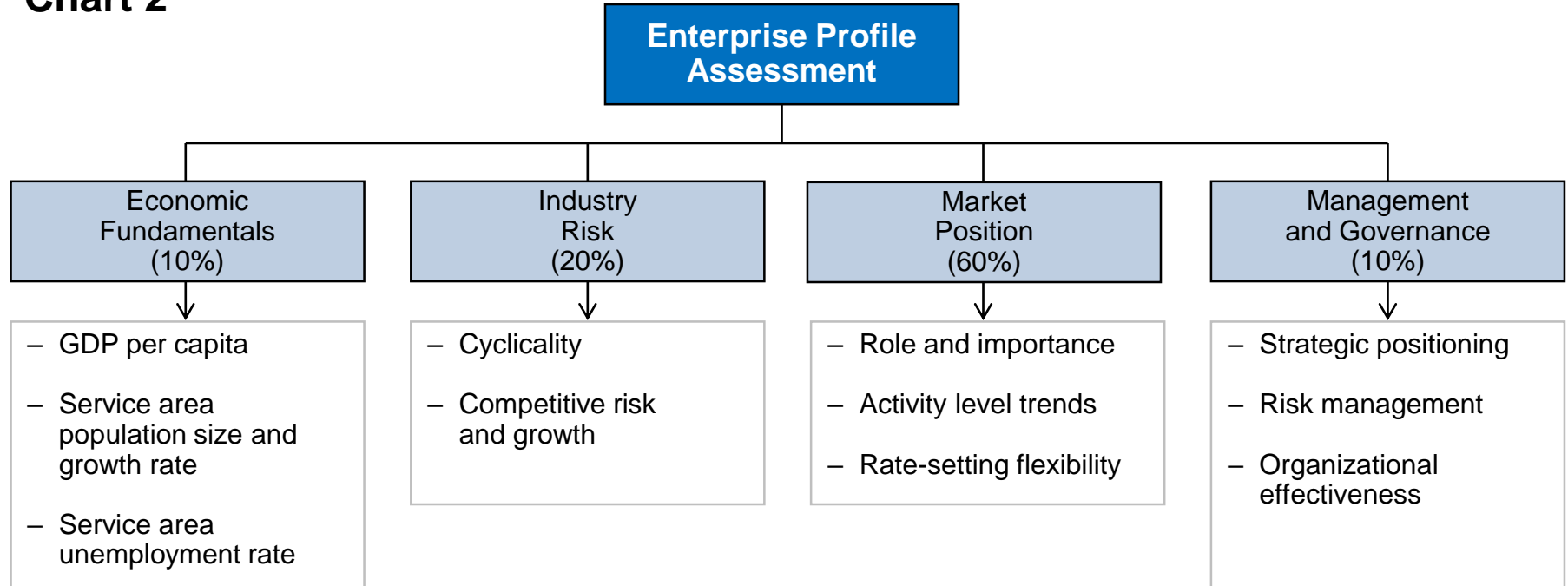
Getting to the Final Issue Rating

Chart 1 (continued...)



Analytical Framework for Enterprise Profile (EP)

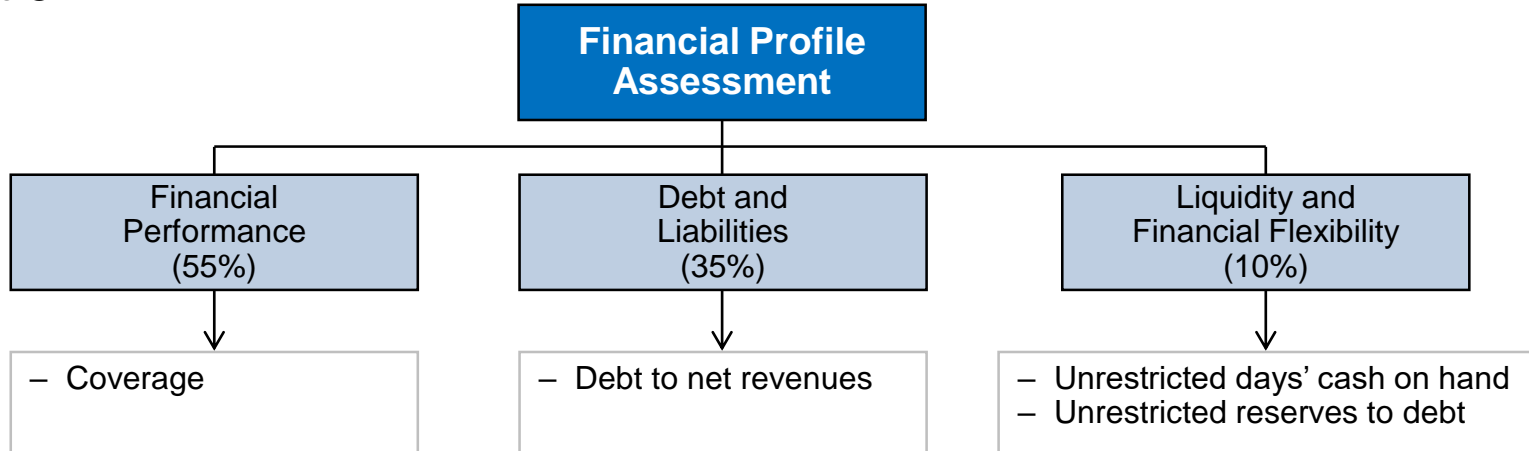
Chart 2



- Assesses operating environment and incorporates broad industry factors and organization-specific factors.
- Factors initial scores range from 1 (best) to 6 (worst) based on data metrics and qualitative aspects.
- Additional considerations may be taken into account, resulting in assessments stronger or weaker than the initial assessments with adjustments of one or two assessment levels more common than adjustments of three or more.

Analytical Framework for Financial Profile (FP)

Chart 3



- Assesses the financial strength of the transportation infrastructure enterprise.
- Factors initial scores range from 1 (best) to 6 (worst) based on data metrics, using the corresponding table (table 5, 6, or 7).
- Additional considerations may be taken into account, resulting in assessments stronger or weaker than the initial assessments with adjustments of one or two assessment levels more common than adjustments of three or more.

Financial Performance Assessment

Table 5

Financial Performance Assessment

	Extremely Strong	Very Strong	Strong	Adequate	Vulnerable	Highly Vulnerable
Coverage*	>4.75x	4.75x-3x	3x-1.25x	1.25x-1.1x	1.1x-1x	<1x

*Refer to table 11 in Appendix 2 for details regarding our coverage calculation and Appendices 3-6 for credit metrics we typically consider when assessing an airport (i.e. GARBs, stand-alone PFC debt, and airport special facility project), port, toll road, and parking system.

Examples of positive considerations	Examples of negative considerations
Break-even enterprise	Narrow or volatile revenue stream
Good rate-setting flexibility	Limited rate-setting flexibility
	Debt service coverage covenant violation
	Material increase in pension or OPEB costs
	Overstated coverage due to bullet amortization

Coverage metrics capture an enterprise's financial health and ongoing ability to service its debt.

Debt and Liabilities Assessment

Table 6

Debt And Liabilities Assessment

	Extremely Strong	Very Strong	Strong	Adequate	Vulnerable	Highly Vulnerable
Debt to Net Revenues (x)*	<5	5-10	10-15	15-20	20-30	>30

*Refer to Appendices 3-6 for more details regarding our debt to net revenues calculation when assessing an airport (i.e., GARBs, stand-alone PFC debt, and airport special facility project), port, toll road, and parking system. For stand-alone PFC debt transactions, we use stand-alone PFC debt to annual PFC revenues.

Examples of positive considerations	Examples of negative considerations
Break-even enterprise	Single asset or narrow revenue stream
Very limited or no additional debt needs	Significant additional debt needs or large capital plan risks
Facilities that require minimal capital investment	More than 50% of debt is exposed to interest-rate changes
Debt per enplanement is low, if applicable	Large unfunded defined-benefit pension plan and OPEB obligations
	Debt per enplanement is very high, if applicable

Debt to net revenues ratio approximates how long it would take for an enterprise to pay off all of its debt based on its current or expected excess operating revenue capacity.

Liquidity and Financial Flexibility Assessment

Table 7

Liquidity And Financial Flexibility Assessment-- Initial Assessment

	Extremely Strong	Very Strong	Strong	Adequate	Vulnerable	Highly Vulnerable
Unrestricted Days' Cash on Hand*	>800	800-400	400-250	250-120	120-60	<60
Unrestricted Reserves to Debt (%)*	>85	85-50	50-20	20-7.5	7.5-3.0	<3

*Refer to Appendices 3-6 for credit metrics we typically consider when assessing an airport (i.e., GARBs, stand-alone PFC debt, and airport special facility project), port, toll road, and parking system.

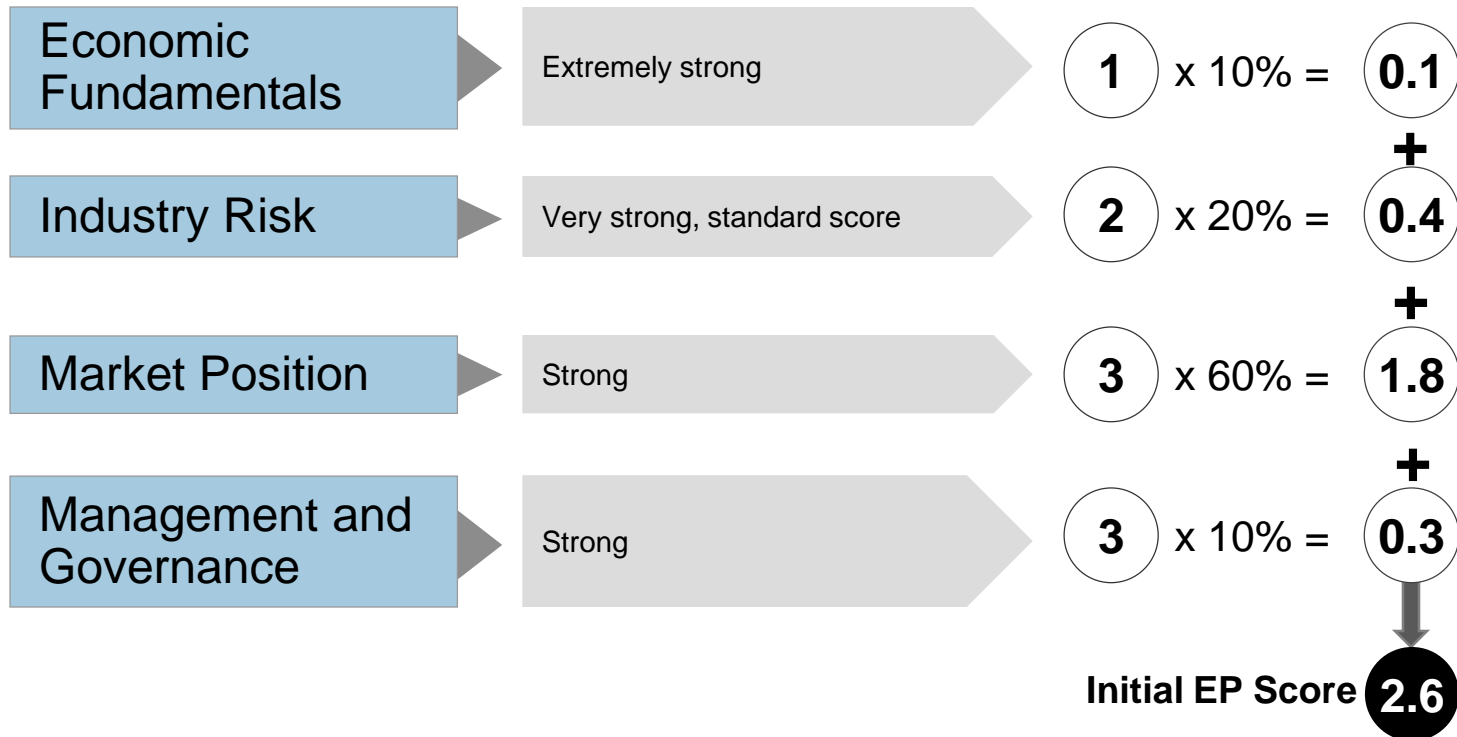
Examples of positive considerations	Examples of negative considerations
Break-even enterprise	Contingent liquidity risks
	Reliance on lines of credit

Unrestricted days' cash on hand reflects an entity's financial flexibility and capability to withstand operating challenges while still covering its operating expenditures. Unrestricted reserves to debt measure financial flexibility, and is a way to assess debt capacity and debt servicing ability.

An Airport GARB Example



Enterprise Profile (EP)



Organization implements aggressive policies and strategies or is operating in an increasingly competitive environment; country risk assessment is '4', '5', or '6'.

NO

If an assessment falls at or near a midpoint or at or near a cut-off for any component thereof, we generally assign a stronger assessment if trends are improving or we believe future performance will improve. A weaker assessment generally is assigned if trends are weakening or we believe future performance will be weaker.

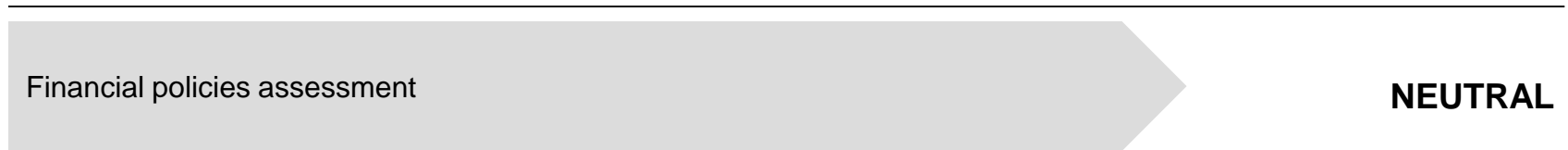
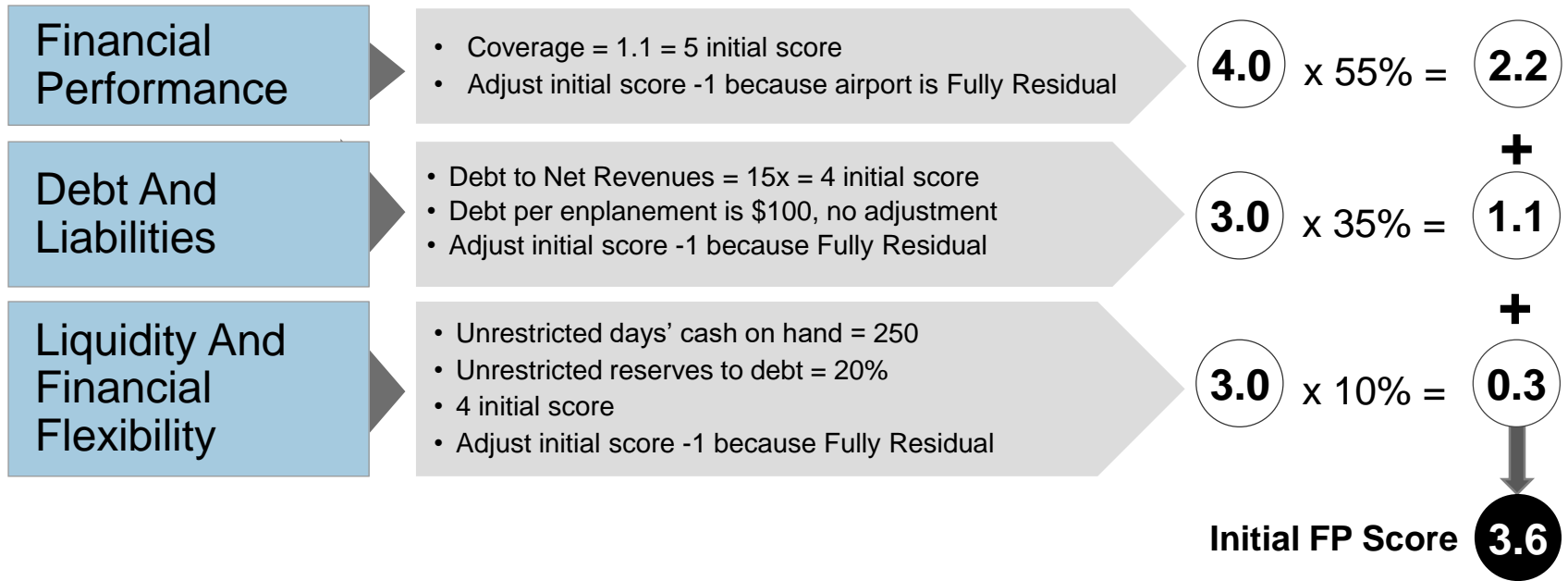
Preliminary EP Score

2.6

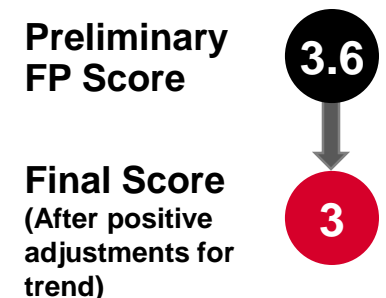
Final Score
(After no adjustments)

3

Financial Profile (FP)



If an assessment falls at or near a midpoint or at or near a cut-off for any component thereof, we generally assign a stronger assessment if trends are improving or we believe future performance will improve. A weaker assessment generally is assigned if trends are weakening or we believe future performance will be weaker.



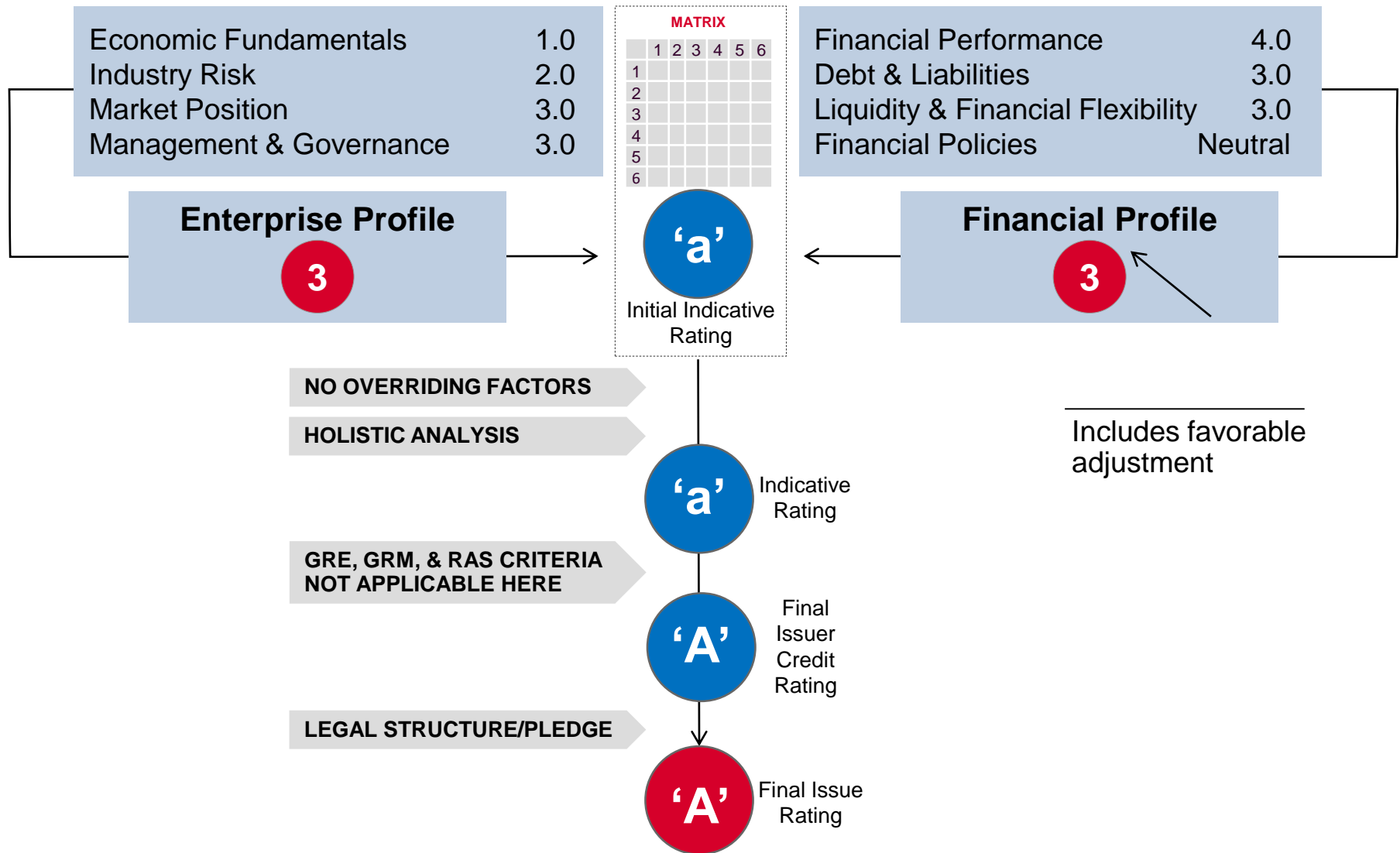
Determining the Initial Indicative Rating

Table 1

Combining The Enterprise And Financial Risk Profiles To Determine The Initial Indicative Rating

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2 Very strong	aa+	aa/aa-	a+	a-	bbb/bbb-	bb/bb-
3 Strong	aa-	a+	a	bbb+/bbb	bbb-/bb+	bb-
4 Adequate	a	a/a-	a-/bbb+	bbb/bbb-	bb	b+
5 Vulnerable	bbb+	bbb/bbb-	bbb-/bb+	bb	bb-	b
6 Highly Vulnerable	bbb-	bb	bb-	b+	b	b-

Steps to Arriving at Final Rating



Two Airports Recently Assessed



Los Angeles Department of Airports – LAX

- ▶ Senior lien rated AA/Stable; subordinate lien rated AA-/Stable; both ratings affirmed
- ▶ \$5.64 billion of debt outstanding (\$3.4 billion on senior lien; \$2.24 billion on subordinate lien)
- ▶ \$10.7 billion major capital development program, requiring additional debt
- ▶ Projections show total debt increasing to \$11.5 billion by 2022

Los Angeles Department of Airports – LAX (continued)

- ▶ Enterprise Risk Profile: Extremely Strong*
 - Economic Fundamentals: Extremely Strong (10%)
 - Service area with favorable levels of economic activity as measured by GDP per capita and a large population base
 - Market Position: Extremely Strong (60%)
 - High activity levels (41.6 million total enplanements [EPAX] in fiscal 2017), very strong competitive position, primarily O&D (79%) enplanement levels, favorable enplanement trends, an economically deep and diverse service area, and a diverse air carrier mix with no airline having a market share above 20%
 - Management and Governance: Extremely Strong (10%)
 - Generally achieving or exceeding financial and operational goals, detailed financial projections and capital planning, an experienced and deep management team, generally well-defined project plans and targets that mitigate key risks, and a history of successful operations

Los Angeles Department of Airports – LAX (continued)

► Financial Risk Profile: Strong

- Financial Performance: Strong (55%)
 - Coverage (S&P Global Ratings-calculated) that we expect (through 2024) will be no lower than 1.57x, including all obligations and additional debt. Over the last three years all in coverage ranged from 2.14x to 2.97x.
- Debt and Liabilities capacity: Strong (35%)
 - Expect debt to net revenues will be maintained within the 10x to 15x range, taking into consideration airport's sizable capital improvement program (CIP), its additional debt plans, and it applying passenger facility charge (PFC) revenues to debt service
- Liquidity and Financial Flexibility: Strong (10%)
 - Days' cash on hand that we expect will be maintained at around 365
 - Unrestricted cash reserves to debt declining to about 9%

Los Angeles Department of Airports – LAX (continued)

- ▶ Outlook: Stable (EPAX will remain relatively stable; and airport's coverage, debt capacity, and liquidity are maintained at levels we consider strong)
 - Due to airport's sizable CIP, requiring significant additional debt to fund it, it is unlikely we will raise the rating in the next two years.
 - If the airport's enplanement levels drop significantly, or coverage (S&P Global Ratings-calculated) drops to levels we view as adequate, we could lower the rating in the next two years.
- ▶ Senior and subordinate liens rated 'AA' and 'AA-'
 - To accurately reflect airport's overall creditworthiness, a positive holistic analysis adjustment was applied in arriving at the final 'AA' long-term rating on the senior debt. The adjustment reflects the airport's very high activity levels (#1 in US for O&D enplanements; #2 in US for total EPAX) due to its very important role in the overall U.S. market (including international destinations); and its consistently high activity levels and strong financial results.

Miami International Airport – MIA

- ▶ Rated A/Stable, affirmed
- ▶ \$5.7 billion of debt, consisting of aviation revenue bonds, series 2010 double-barreled aviation bonds, commercial paper, capital leases, and a Florida Department of Transportation Infrastructure bank loan.
- ▶ Plans to issue \$726 million of additional debt to fund a \$1.45 billion terminal optimization program
- ▶ Uses a residual rate-setting methodology

Miami International Airport – MIA (continued)

- ▶ Enterprise Risk Profile: Very Strong*
 - Economic Fundamentals: Extremely Strong (10%)
 - A populous service area with favorable level of economic activity, and above-average expected population growth
 - Market Position: Very Strong (60%)
 - 22 million total enplanements (EPAX); generally favorable enplanement trends; U.S. gateway airport to Latin America for American Airlines (AA); serving a broad and diverse service area economy
 - Tempered by 66% of EPAX served by AA; approx. \$20 CPE, 32% connecting, and competition for domestic passengers from FLL and international passengers from other U.S. airports en route to Latin America
 - Management and Governance: Very Strong (10%)
 - Effective and experienced management team that has sufficiently managed risks to ensure the airport's steady financial and operational performance.

Miami International Airport – MIA (continued)

► Financial Risk Profile: Adequate

- Financial Performance: Adequate (55%)
 - Historically steady financial performance (that we expect to continue) from largely residual use agreements, allowing coverage (S&P Global Ratings-calculated) at or near 1x consistently
- Debt and Liabilities capacity: Adequate (35%)
 - Taking into consideration airport's CIP, its additional debt plans, \$260 debt per enplanement, and applying PFC's to paying GARB debt service
- Liquidity and Financial Flexibility: Adequate (10%)
 - No plans to materially draw down cash reserves to fund CIP
 - Days' cash on hand will be maintained above 250
 - Unrestricted cash reserves to debt will remain below 7.5%

Miami International Airport – MIA (continued)

- ▶ Outlook: Stable (EPAX will remain near recent levels and airport's finances remain steady)
 - Due to airport's high debt load, high airline cost structure, and additional debt needs, it is unlikely we will raise the rating in the next two years.
 - If coverage (S&P Global Ratings-calculated) cannot be maintained at or above 1x, we could lower the rating in the next two years.
- ▶ Senior lien rated 'A'
 - To accurately reflect the airport's overall creditworthiness, a positive holistic analysis adjustment was applied in arriving at the 'A' long-term rating. The adjustment reflects the financial and operational resilience of a large connecting hub airport that has maintained steady financial performance and relatively high activity levels through a range of different economic conditions, despite competition from FLL and a high airline cost structure and debt load.

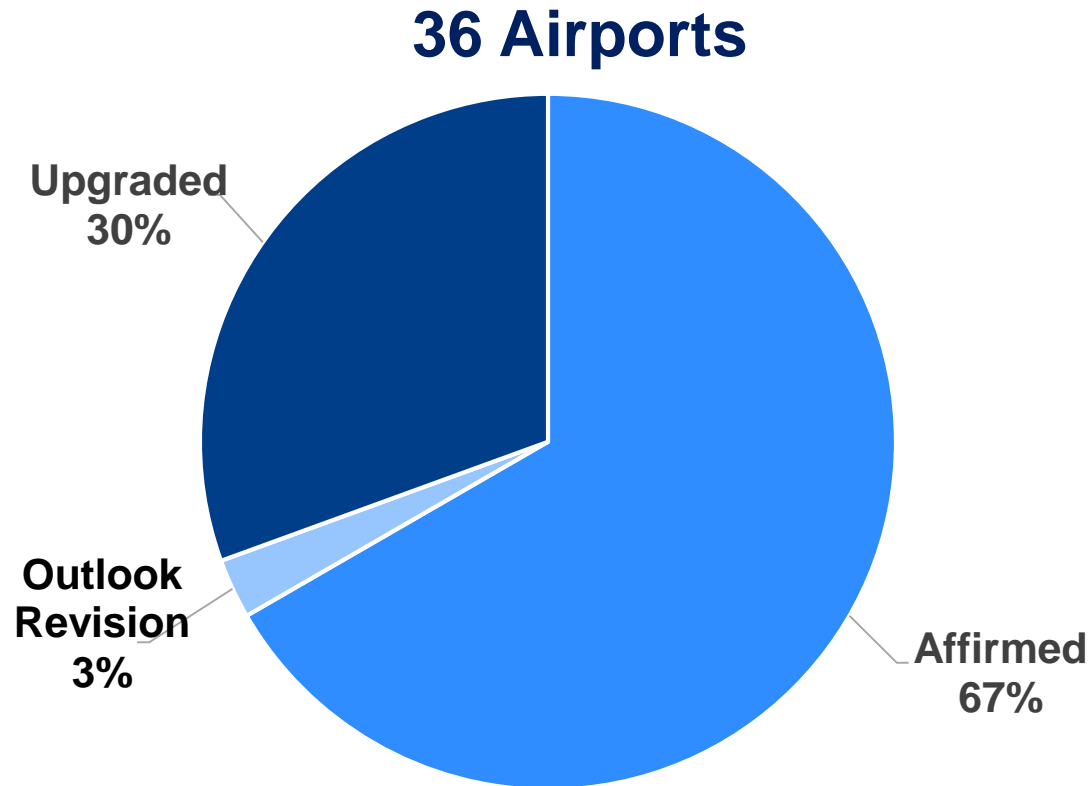
Rating Actions Update



Transportation Infrastructure Enterprise Criteria Implementation Update for Airport GARB Ratings

- ▶ 36 in-scope airport GARB credits reviewed thus far (Mar. 12 – Sep. 20)
 - ❑ 31 US-based and 5 Canada-based
 - ❑ 67% experienced no change to their rating
 - ❑ 30% were upgraded
 - ❑ 3% we revised positive outlook to stable, while affirming rating
- ▶ Roughly half of our GARB credits remain to be reviewed under the updated criteria

Transportation Infrastructure Enterprise Criteria Implementation Airport GARB Rating Actions Summary



Transportation Infrastructure Enterprise Criteria Implementation Update for Airport Sector

US airport credits reviewed Mar. 12, 2018 – Sep. 20, 2018.

Albany Intl Arpt, NY	Hawaii Arpts Sys, HI	Omaha Eppley Airfield, NE
Augusta Rgnl Arpt, GA	Houston Arpt Sys, TX	Port of Pasco, WA
Bradley Intl Arpt, CT	Las Vegas McCarran Intl Arpt, NV	Port of Seattle, WA
Charleston Cnty Arpt Dist, SC	Los Angeles Intl Arpt, CA	Rogue Valley Intl-Medford Arpt, OR
Chicago O'Hare Intl Arpt, IL	Louisville Rgnl Arpt Auth, KY	Sacramento Intl Arpt, CA
Cleveland Hopkins Intl Arpt, OH	Memphis Intl Arpt, TN	Salt Lake City Intl Arpt, UT
Denver Intl Arpt, CO	Metropolitan Washington Arpts Auth, DC	San Francisco Intl Arpt, CA
Des Moines Intl Arpt, IA	Miami Intl Arpt, FL	San Jose Intl Arpt, CA
El Paso Intl Arpt, TX	Midway Intl Arpt, IL	St. Louis Intl Arpt, MO
Fresno Yosemite Intl Arpt, CA	Okaloosa County, FL	
Hartsfield Jackson Atlanta Intl Arpt, GA	Oklahoma City Arpt Trust, OK	

Transportation Infrastructure Enterprise Criteria Implementation Update for Airport Sector

Canadian airport credits reviewed Mar. 12, 2018 – Sep. 20, 2018.

Edmonton Rgnl Arpts Auth, AB

Greater Toronto Arpts Auth, ON

Ottawa Macdonald Cartier Intl Arpt Auth, ON

Vancouver Arpts Auth, BC

Winnipeg Arpts Auth, MB

Transportation Infrastructure Enterprise Criteria Implementation Update For Other Airport-Related Ratings

- Five airport special facility project ratings affirmed and four upgraded

Chicago O'Hare Multimodal Facility	Bush Intercontinental CONRAC
Hawaii Arpts System Rental Car Facility	New Orleans Intl Arpt CONRAC
LAXFUEL Corp.	SEATAC Fuel Facilities LLC
Massport CONRAC	SFO Fuel Co LLC
Phoenix Sky Harbor Rental Car Facility	

- Three stand-alone PFC debt ratings affirmed (BWI, ORD, SEA)
- One civic air service navigation service provider rating affirmed (NAV Canada)

Thank you.

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Appendix



Market Position Assessment

Table 2

Market Position Assessment By Asset Class (cont.)

Extremely Strong	Very Strong	Strong	Adequate	Vulnerable	Highly Vulnerable
General Characteristics Of Infrastructure Enterprises (Not Asset Class-Specific)					
Enterprises that provide an essential service to a national or a favorable regional economy; serve strategic routes or have a quasi-monopoly within its market; have a long history of resilient and diverse demand through different economic cycles that we believe is sustainable; and there are no apparent restrictions on pricing power legally, competitively, politically, and for other reasons.	Enterprises that provide an essential service to the national or regional economy; serve strategic routes within its market; have a history of strong demand across a range of economic conditions that we believe is sustainable; and have minimal restrictions on pricing power legally, competitively, politically, and for other reasons.	Enterprises that provide an important service; have modest exposure to competition; have relatively stable and predictable activity levels supported by an economically healthy service area and above-average demand characteristics; and good pricing power, despite moderate legal, competitive, political, or other constraints.	Enterprises that provide a longstanding service with average exposure to competition; have generally stable activity levels with some variability and average demand characteristics; and fair pricing power due to some constraints from legal, competitive, political, or for other reasons.	Enterprises that are start-ups; are marginal providers within a service area; face significant competition; have limited operating capacity; have unpredictable activity levels; have limited-to-poor growth prospects; and have limited or weak pricing power due to high leverage or legal, competitive, political, or for other reasons.	Enterprises that are start-ups or marginal providers within a weak service area; face intense competition; have limited operating capacity or poor infrastructure quality; have no or highly unpredictable activity levels or have a high likelihood of experiencing a significant drop in demand; and have very limited, uncertain, or no pricing power due to legal, competitive, political, or other constraints.

Market Position Assessment (*continued...*)

Table 2

Market Position Assessment By Asset Class

Extremely Strong	Very Strong	Strong	Adequate	Vulnerable	Highly Vulnerable
Airports					
Airport or airport system that provides essential air service, functioning as a national provider with minimal competition with no apparent constraints on increasing rates.	Airport or airport system that is a dominant provider for air travel, functioning as the primary provider to a large local service area or as a national connecting hub. Alternatively, an airport that falls short of extremely strong due to significant capital programs, which test their pricing power. An airport that has low carrier concentration, or a low airline cost structure despite having high air carrier concentration.	Airport that functions as major connecting hub with extremely high air carrier concentration, or a smaller airport that has generally stable or modest fluctuations in traffic, but is able to maintain a good base level of air travel demand that we believe is sustainable. An airport that fits either description above, even though it has a high airline cost structure.	Smaller airport that has a relatively stable or sufficient base level of demand.	Airport experiencing year-over-year declines or fluctuations in traffic due to a weak competitive position or from serving a very economically weak service area.	Start-up airport or an existing small airport that has very volatile activity or generally negative enplanement trends due to a weak competitive position.

Credit Metrics And Other Considerations

Table 12

Airport Credit Metrics And Other Considerations

Credit Factor	Credit Metrics Typically Considered
GARB	
Market Position	Total enplanements. Origin-destination (O&D) enplanements. Connecting enplanements. Cost per EPAX. Top airline carrier (as a percentage of enplanements or total operating revenues). Include all of top carrier's service offerings (mainline, commuter, and regional affiliates).
Management and Governance	Status and terms of key agreements, such as airline use and lease agreements that materially influence an airport's financial performance. If applicable, effectiveness of minimum annual guarantee provisions in key agreements are also considered. Willingness and ability to enforce and adhere to the terms of such agreements.
Financial Performance: Coverage	See Appendix 2 for guidance on coverage.
Debt and Liabilities: Debt to net revenues	Total GARB debt divided by EBIDA. See the glossary for more guidance.
Debt and Liabilities: Debt per EPAX	Total GARB debt divided by EPAX. See the glossary for more guidance.
Liquidity and Financial Flexibility: Unrestricted days' cash on hand	Available liquidity divided by S&P Global Ratings' adjusted annual operating expenses, then multiplying result by 365 days. See the glossary for more guidance.
Liquidity and Financial Flexibility: Unrestricted reserves to debt	Available liquidity divided by total GARB debt. See the glossary for more guidance.

Key Term: Break-even enterprise

82. **Break-even enterprise.** Under these criteria, break-even enterprise has multiple meanings:
83. (1) An enterprise or project whereby fees, charges, and rents, which make up the bulk of the entity's operating revenues, are paid by key tenants or users of the entity's facilities on a fully residual basis. For airports, this would refer to landing fees and terminal rents paid by the airlines. Some examples of enterprises we would not consider fully residual are airports that employ a hybrid or compensatory rate setting methodology.
84. (2) A contractual framework whereby revenues securing the debt under consideration are produced on a residual cost recovery basis, including an unlimited step-up provision for the sharing of capital and operating expenses among key users of the enterprise or facility.
85. (3) An enterprise or project where all excess revenues available, after meeting all required funding requirements of the enterprise or project, are transferred out to a city, county, state, province, or other party.

Airports that operate on a hybrid or compensatory basis will not be treated as fully residual airports if they have extraordinary coverage protection.

Core Financial Performance Metric: Coverage

Table 11

Coverage Calculation Detail*

First, we add items 1-4

1: Total operating revenues,

2: Interest income,

3: Other committed recurring revenue sources, and

4: Net transfer out (added back if included as part of total operating expenses and we consider it debt-like).

Second, we subtract items 5-7 from the result computed from the step above.

5: Total operation and maintenance (O&M) expenses,

6: Other recurring charges, and

7: Net transfers out (if not included as part of total operating expenses and we consider it O&M expense-like).

Finally, we divide the result from the first two steps by the sum of items 8-10.

8: Annual revenue bond debt service requirement for all debt obligations with no debt service offsets,

9: Other recurring obligations paid by enterprise or project revenues, and

10: Net transfers out we consider debt-like.

*For stand-alone PFC debt transactions the coverage calculation is annual PFC revenues divided by PFC MADS, if there is no rate-setting flexibility, and by annual PFC debt service, if rate-setting flexibility exists.

Related Articles

- ▶ Refer to the RatingsDirect article titled, “*U.S. Public Finance: U.S. And Canadian Not-For-Profit Transportation Infrastructure Enterprises: Methodologies And Assumptions*,” published on March 12, 2018), to learn more about our criteria.
- ▶ Refer to the RatingsDirect article titled, “*Credit FAQ: An Update To Our U.S. And Canadian Not-For-Profit Transportation Infrastructure Enterprises Criteria Implementation*,” published on July 18, 2018, for detailed list of issuers reviewed.