



Creditworthiness and the Ratings Process

A View From Moody's

Moody's at a Glance



Global leadership

- » US\$30 trillion rated debt
- » Presence in 35 countries
- » Award winning credit rating agency



Impactful opinions

- » Over 16,000 users of Moodys.com
- » Over 1.4 million readership of Moodys.com



Industry knowledge

- »US\$3.1 trillion of rated infrastructure debt (US\$2.6 trillion corporate & PF, US\$0.5 trillion US municipal)
- »Over 1,600 rated infrastructure issuers across the globe



Timely delivery

- » 4-6 weeks standard lead time for a rating
- » Over 140 infrastructure analytical staff globally
- » Over 20 languages spoken



Transparency

- » 19 industry specific methodologies for infrastructure
- » Rating methodologies incorporate easy to use scorecards (i.e. rating grids)



Moody's rates various types of seaport bonds

(4)	
Long	Probability
Term	of Default
	or Bordan
Aaa	.00006%
Aa1	.00063%
	.00150%
Aa3	.00332%
Δ1	.00639%
	.01196%
A3	.04274%
Baa1	.099%
	.187%
	.462%
Dado	.10270
Ba1	.957%
Ba2	1.716%
Ba3	3.091%
R1	5.148%
	7.876%
B3	12.782%
0 1	10 120%
	19.120% 28.6%
Caa3	56.089%
Ça	100%
С	100%
	Aa1 Aa2 Aa3 A1 A2 A3 Baa1 Baa2 Baa3 Ba1 Ba2 Ba3 B1 B2 B3 Caa1 Caa2 Caa3

- » Moody's rates 54 seaport bonds
- » Revenue bonds: 27 US seaports
 Rated US debt totals approximately
 \$15 billion
- » General Obligation Ports:
 Moody's rates 20 US seaport with tax-supported bonds
- Privately Managed Ports:
 7 international ports and port companies; \$6 billion in rated debt
- » Rating levels high and very stable

Moody's rates various types of seaport bonds

	Long	Probability
Quality of credit	Term	of Default
Quality of credit	Territ	OI Delault
Gilt edged	Aaa	.00006%
	Aa1	.00063%
	Aa2	.00150%
Very high	Aa3	.00332%
	Aas	.0000270
	A1	.00639%
77.5	A2	.01196%
Upper-medium	A3	.04274%
	, ,,	.0421470
	Baa1	.099%
	Baa2	.187%
Medium grade	Baa3	.462%
Wediam grade	Dage	.40270
	Ba1	.957%
Questionable	Ba2	1.716%
Questionable	Ba3	3.091%
	B1	5.148%
Door guality	B2	7.876%
Poor quality	B3	12.782%
	04	19.120%
	Caa1 Caa2	19.120% 28.6%
	Caa3	56.089%
Very poor	Ca	100%
A Continue	Č	100%
	325	15/5/5/5/5/5

» Moody's rates 54 seaport bonds

» Revenue bonds: 27 US seaports Rated US debt totals approximately \$15 billion

» General Obligation Ports:

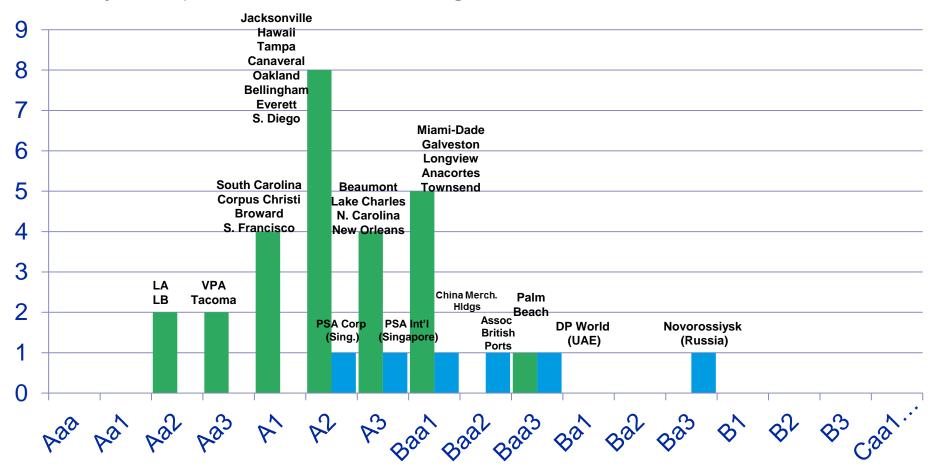
Moody's rates 20 US seaport with tax-supported bonds

» Privately Managed Ports:

7 international ports and port companies; \$6 billion in rated debt

» Rating levels high and very stable

Moody's Seaport Revenue Bond Rating Distribution



^{*}Ports of New York (Aa3), Seattle (Aa2/A1), and Boston (Aa3) are excluded as bonds are joint support with airport



2016 US Ports Outlook Is Stable

Steady container volume growth supports stable outlook

NEGATIVE

What could change outlook to negative

- » Container volume growth approaches zero
- » Signs emerge that changes in shipping patterns are negatively affecting port capital spending and pricing power

STABLE

- We see the seed of the seed
- » Continued growth in US economy will support growth in container volume
- » Low fuel prices and significant excess container capacity will keep the costs of shipping goods low in 2016, also supporting cargo growth
- » Shippers now have greater certainty about potential labor risks

POSITIVE

What could change outlook to positive

- » US economic growth exceeds expectations
- » Container volume surpasses 6% on the back of stronger- thanexpected economic growth

Note: A negative industry outlook indicates our view that fundamental business conditions will worsen. A positive outlook indicates that we expect fundamental business conditions to improve. A stable industry outlook indicates that conditions are not expected to change significantly. Since industry outlooks represent our forward-looking view on conditions that factor into ratings, a negative (positive) outlook indicates that negative (positive) rating actions are more likely on average.

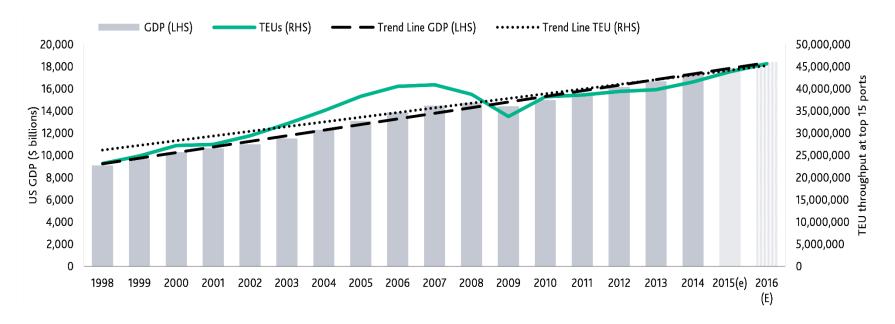


2016 US Ports Outlook Is Stable

Steady container volume growth supports stable outlook

- » Continued growth in the US economy will support container volume growth
- » Low fuel prices, excess capacity will keep the costs of shipping low in 2016, also supporting cargo volume growth

US container volume growth closely tracks US GDP growth



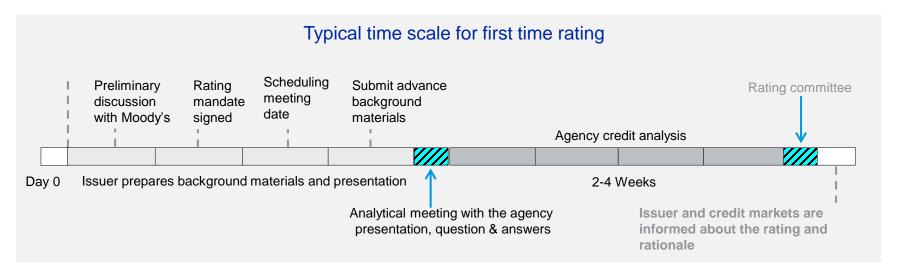
Note: Sources: American Association of Port Authorities, Moody's



How Are Ratings Determined?

- » What is a rating?
 - Moody's definition "forward-looking opinions of the relative credit risks of financial obligations"
- » What determines a rating?
- » Jeff Strader (CFO, Port Freeport) article in Nov 2014 Seaports Magazine
 - Strategic vision
 - Long range financial plan
 - Balance sheet strength
 - Manage operations to improve finances
 - Vision of port leadership
- » Every investor has their own opinion of the value of each risk

Moody's Rating Process



Three phases to the initial rating process

1. Introductory phase	Client introduction, exchange of information required for rating, management meeting and any follow-up required post meeting
2. Intermediate phase	Post management meeting and follow-up, the analyst prepares rating committee memo for debate by the full rating committee
3. Final phase	Rating determined by committee and rating delivered through Moodys.com (public) or intralinks (private)

Moody's Port Scorecards - A Starting Point

What They Are, What They Are Not

- "Designed to provide a reference tool for debt ratings"
- "Qualitative and quantitative factors that are usually the most important"
- » Intends to suggest outcome "within 2 notches"

NOT:

- "Does not include an exhaustive treatment of all factors"
- Weights show "typical importance", but actual importance "may vary significantly"
- "Does not replace fundamental rating committee"





Moody's Port Scorecards - A Starting Point

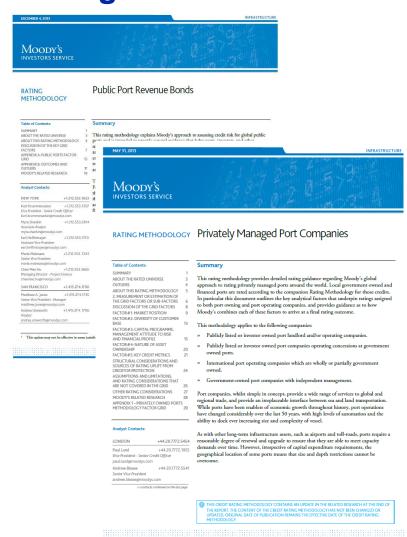
Why Two?

Private Ports Companies:

- » Are owned or operated by a corporate entity
- » Bondholders are subject to the corporate risks of that entity
- » Gov't support factored in Moody's GRI scale

Public Ports:

- » Owned / operated by a government
- » Credit risk is primarily on the strength of the port
- » Likely to receive implicit gov't support as a key economic driver





Moody's Public Port Scorecard- A Starting Point

How It Works

- » Four Major Factors
- » 8 Sub-Factors
- » Notching factors for:
 - Financial Liquidity
 - Tax support for operating

Public Ports Factor Weighting					
Weight	Factor				
40%	Market Position				
15%	Diversity and Volatility				
5%	Capital Program				
40%	Key Financial Credit Metrics				
+/-	Notching Considerations				

» Sample sub-factor:

	Aaa	Aa	A	Baa	Ва	В	Caa
a) Port size (Operating Revenues)	Greater than \$300 million	\$200 million or greater but less than \$300 million	\$75 million or greater but less than \$200 million	\$50 million or greater but less than \$75 million	\$30 million or greater but less than \$50 million	\$15 million or greater but less than \$30 million	less than \$5 million

Scorecard Process

Factors		Subfactors	Weight
		a) Operating Revenue	25%
1. Market Position	40%	b) Competition and Service Area	7.5%
		c) Operational restrictions	7.5%
2. Discouries and Malastities	15%	a) Operating Revenue & Volatility (5 year CAGR)	10%
2. Diversity and Volatility		b) Customer Diversity	5%
3. Capital Program	5%	a) Capital Needs Requiring Leverage	5%
4 Kay Cradit Matrice	400/	a) Net Revenues DSCR (3 year avg) ²	20%
4. Key Credit Metrics	40%	b) Debt to Operating Revenue (3 year avg)	20%
Total	100%	Total	100%

Notching Adjustments (+1 to -1 notches):

- 1. Tax Support for Operations
 - +1 notch= Tax revenues currently support O&M and/or debt service
 - +.5 notch= Ability to levy tax to support O&M, but not implemented
- 2. Liquidity (-1, -.5, 0, +.5, +1 Notches) Based on the ratio of cash to debt:
 - +1 notch= Cash to debt >100% debt<10%

- -1 notch= Cash to
- +.5 notch= Cash to debt < 100%, >70% -.5 notch= Cash to debt >10%, <30%



Moody's Public Port Scorecard- Limitations

Snapshot

Metrics are current/past

Other common rating considerations

VRDO's Purpose of debt

Swaps MAGs

Future Debt Shipping line trends

Labor relations Cargo growth trend

Debt service structure Lease schedule

Other financial metrics Management strength

» 50% of ratings match the scorecard outcome



RATING METHODOLOGY

Public Port Revenue Bonds

Table of Contents: ABOUT THE RATED UNIVERSE ABOUT THIS RATING METHODOLOGY DISCUSSION OF THE KEY GRID

APPENDIX A: PUBLIC PORTS FACTOR MOODY'S RELATED RESEARCH

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Summary

This rating methodology explains Moody's approach to assessing credit risk for global public ports and is intended to provide general guidance that helps ports, investors, and other interested market participants understand how qualitative and quantitative risk characteristics are likely to affect rating outcomes for public ports. This document does not include an exhaustive treatment of all factors that are reflected in Moody's ratings but should enable the reader to understand the qualitative considerations and financial information and ratios that are usually most important for ratings in this sector.

This rating methodology replaces1 the Rating Methodology for US Ports published in February 2005. While reflecting many of the same core principles as the 2005 methodology, this updated document provides a more transparent presentation of the rating considerations that are usually most important for issuers in this sector and incorporates refinements in our analysis that better reflect credit fundamentals of the industry. No rating changes will result from the publication of this methodology.

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¹ This update may not be effective in some jurisdictions until certain requirements are me

Port of Los Angeles

» What are the Port of LA's operating revenues? (\$425.9 million)

Aaa	Aa	Α	Baa	Ва	<u> </u>
Greater than \$300 million	\$200 million or greater but less than \$300 million	\$75 million or greater but less than \$200 million	\$50 million or greater but less than \$75 million	\$30 million or greater but less than \$50 million	\$15 million or greater but less than \$30 million

Port of Los Angeles

» How do you characterize the Port of LA service area?

<u> Aaa</u>	Aa	Α	Baa	Ва	<u> </u>
Port has an effective monopoly on port services for a large population base (>10 million) or is a key national port asset with little competition.	Port forms an essential part of the economy for a large, multistate or province region (population >5 million). Competitive position in the region is dominant.	Port serves as a major regional port and is the largest in its state or province. Faces some competition but has a competitive advantage.	Port primarily serves a midsized to small city or region (population 1-3 million) with limited economic growth. Strengths equal to peers in its competitive environment and is expected to maintain its current activity levels or competitive position.	Port primarily serves a small city with limited expected economic growth. Limited connections, or lacking good proximity to major centers. Operates at a competitive disadvantage which is expected to cause throughput to stagnate or decline.	Port located away from any significant population centers. Operates at a significant competitive disadvantage to other ports, or expected to have a highly volatile demand pattern

Port of Los Angeles

» How do you characterize the Port of LA's service area?

Aaa	Aa	Α	Baa	Ва	<u> </u>
Port has an effective monopoly on port services for a large population base (>10 million) or is a key national port asset with little competition.	Port forms an essential part of the economy for a large, multistate or province region (population >5 million). Competitive position in the region is dominant.	Port serves as a major regional port and is the largest in its state or province. Faces some competition but has a competitive advantage.	Port primarily serves a midsized to small city or region (population 1-3 million) with limited economic growth. Strengths equal to peers in its competitive environment and is expected to maintain its current activity levels or competitive position.	Port primarily serves a small city with limited expected economic growth. Limited connections, or lacking good proximity to major centers. Operates at a competitive disadvantage which is expected to cause throughput to stagnate or decline.	Port located away from any significant population centers. Operates at a significant competitive disadvantage to other ports, or expected to have a highly volatile demand pattern

Port of Los Angeles

» What limitations impact Port of LA's ability to attract business?

<u> Aaa</u>	Aa	Α	Baa	Ва	<u> </u>
No physical limitations to operations	Port able to handle all cargo types, but some physical limitations may limit long-term growth	Ability to handle container throughput is small; some physical limitations are expected to limit long-term growth; port may primarily be for cruise passengers but able to handle several large vessels	Port unable to routinely handle containers; long-term growth of bulk cargo is not limited by physical restrictions; port may primarily be for cruise passengers but able to handle a single large vessel	Port can only handle bulk cargo, but handles a wide variety of cargo types; mid-term growth may be limited by channel depth, physical land area, or other; primarily cruise port that handle several small vessels	Port can only handle certain types of bulk cargo; mid-term growth severely limited by channel depth, physical land area, or other; primarily cruise port that handle vessels of very limited number and size

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Port of Los Angeles

- » What is Port of LA's 5yr operating revenue annual growth rate? (1.2%)
- » How concentrated are its customers? (Top 5 = 63.4%; Top 10= 80.4%)

Aaa	Aa	Α	Baa	Ва	B
5% or greater	3% or greater but less than 5%	1% or greater but less than 3%	0% or greater but less than 1%	-1% or better but less than 0%	-3% or better but not more than - 1%
Operating revenue from diverse array of customers; top 10 account for no more than 25% and no one customer accounts for more than 5%	Operating revenue from diverse array of customers; top 10 account for no more than 30% and no one customer accounts for more than 10%	Operating revenue from diverse array of customers; top 10 do not account for more than 50%; no single customer accounts for more than 20%	Operating revenue has some concentration in customers or industries; top 10 account for more than 50% but not more than 70%	More pronounced concentration in customers or industries; top five customers may account for more than 50% of revenue	Very high concentration in customers or industries; top 3 customers may account for more than 50% of revenues

Port of Los Angeles

» What is Port of LA's expected need for additional leverage?

Aaa	Aa	Α	Ваа	Ва	<u> </u>
Little to no capital needs are required in the medium term; while no additional debt planned, growth is unconstrained.	Medium term capital needs are easily handled through annual cash flow; some limited additional debt is or may be required	Medium term capital needs will require additional debt of less than 20% of current debt	Medium term capital needs will require additional debt of 20% to 33% of current debt	Medium term capital needs will require additional debt of 34% to 50% of current debt	Medium term capital needs will require additional debt of 51% to 100% of current debt

Port of Los Angeles

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Port of Los Angeles

- » What is Port of LA's debt to operating revenues? (1.94x)
- What is the debt service coverage by Moody's/GAAP accounting? (2.91x)

Aaa	Aa	Α	Baa	Ва	<u> </u>
5.0x or greater	2.00 x or	1.30x or greater	1.10x or greater	1.0 x or greater	Below 1.0 x but
	greater but less	but less than	but less than	but less than	greater than
	than 5.0x	2.00x	1.30x	1.10x	0.85x
Below 1.0x	1.0x or greater	2.0x or greater	3.5x or greater	5.0x or greater	7.0x or greater
	but less than	but less than	but less than	but less than	but less than
	2.0x	3.5x	5.0x	7.0x	10.0x

Port of Los Angeles

- » Does the Port of LA receive any tax support?
- » Is financial liquidity particularly strong or weak? (38.2%)

	+1.0	+0.5	0	-0.5	-1.0 (or more)
 Tax Support for Operations 	Current tax revenues support O&M and/or debt service	Ability to levy O&M tax, but not implemented	No impact	N/A	N/A
2. Liquidity	Cash to debt is 100% or greater	Cash to debt is at least 70% but less than 100%	Cash to debt is at least 30% but less than 70%	Cash to debt is at least 10% but less than 30%	Cash to debt is less than 10%

Port of Los Angeles – Current rating Aa2

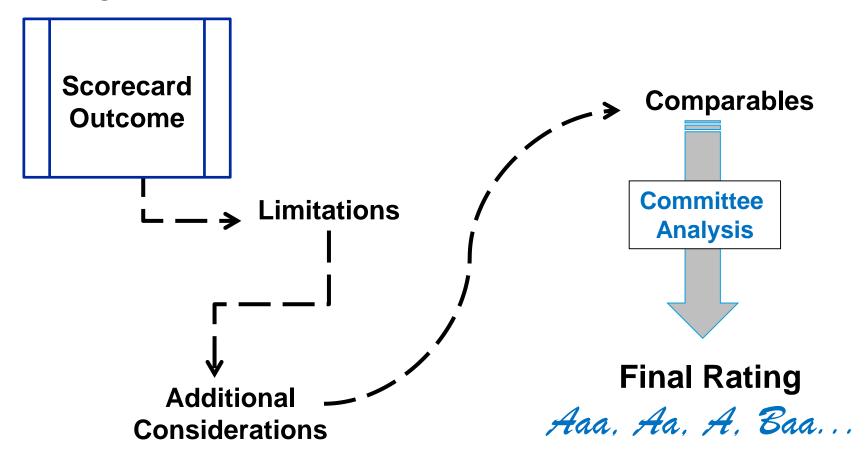
» What is the scorecard outcome?

			Indicated Rating - Aa2		
Factor		Weight	Points	Category	Input
	a) Port size/Operating Revenue	25%	1	Aaa	\$425,951
1. Market Position	b) Service Area and Competition	7.5%	3	Aa	Aa
	c) Op. Restrictions	7.5%	3	Aa	Aa
2. Diversity and Volatility	a) Revenue Variation	10.0%	6	Α	Α
2. Diversity and volatility	b) Customer Diversity	5.0%	12	Ва	Ва
3. Capital Program	. Capital Program a) Capital Program 5.0%		6	Α	Α
	a) Net Revenues DSCR (3 yr avg)	20.0%	3	Aa	2.91x
4. Key Credit Metrics	b) Debt to Operating Revenue (3 year avg)	20.0%	3	Aa	1.94x
Notching Factors					
Tax Support for Operations		0			
Liquidity			0		
Total Notching			0		



Moody's Port Scorecards

The Rating Path



Moody's Investors Service

Globally and locally acknowledged for award winning expertise in credit ratings, research and risk analysis.



#1 US Credit Rating Agency: 2012, 2013, 2014, 2015



Best Credit Rating Agency in EMEA for High Yield & Emerging Markets: 2015



Most Influential Credit Rating Agency: 2013, 2014, 2015



Best Islamic Rating Agency: 2015



of the Year (USA): 2015



Best Islamic Finance Rating Agency: 2015



#1 Asia Credit Rating Agency: 2012, 2013, 2014, 2015



#1 US Rating Agency: 2015 #1 US Municipal Research Team: 2014



Australia's Rating Agency of the Year: 2014, 2015







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