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## **IBTTA Transportation Summit of South Africa**

**- The role of Credit Rating Agencies and Ratings on Toll Roads –**

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March 2012

# Agenda

- ❑ Introduction to Moody's Investors Service
- ❑ What is a Credit Rating?
- ❑ Benefits of a Credit Rating
- ❑ Moody's Rating Approach
- ❑ Moody's Rating Scale and Rating Products
- ❑ Credit Ratings – Corporates vs Project Finance
- ❑ Credit Ratings on Toll Roads – Key Rating Factors
- ❑ Conclusion

# About Moody's

**We are one of the World's Leading Independent Global Providers of Credit Rating Opinions and Insight on Credit Risk Measurement and Management for over 100 years**

## MOODY'S INVESTORS SERVICE

Moody's Investors Service is the leading provider of credit ratings

## MOODY'S ANALYTICS

Leading provider of research, data and analytic tools

### Provides ratings and analysis on over \$30 trillion of debt

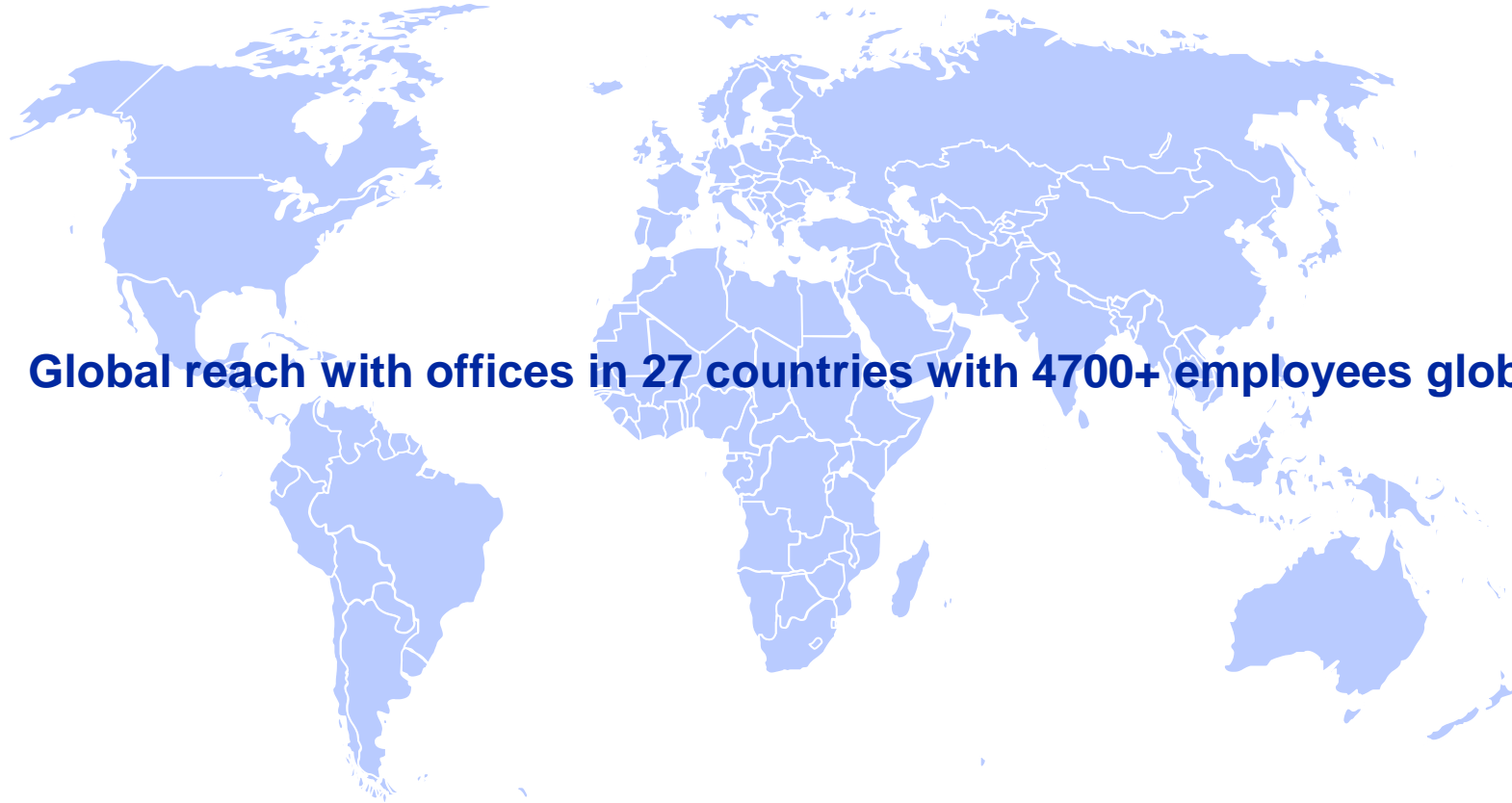
- ✓ 136,000 corporate, government and structured finance securities
- ✓ 67,000 public finance obligations
- ✓ 10,000 corporate and financial institution relationships
- ✓ 100+ sovereign nations

### Extensive credit opinions, deal research and commentary reach

- ✓ 5,000 Institutions
- ✓ 30,000 client users

**Our Mission: To be the world's most respected authority serving credit-sensitive markets**

# We are Global



**Global reach with offices in 27 countries with 4700+ employees globally**

North America: Canada, United States

Latin America: Argentina, Brazil, Mexico

EMEA: Cyprus, Czech Republic, Egypt, France, Germany, Spain, Israel, Italy, Russia, South Africa, United Arab Emirates, United Kingdom

Asia: Australia, China, Hong Kong, India, Japan, Singapore, South Korea

# What is a Credit Rating?

A Credit Rating is an *independent opinion* on the future ability and legal obligation of an issuer to make timely payments on its financial commitments

## Key Elements:

- Independence
- Opinion
- Forward looking view
- Relates to ability to service debt obligations
  - Interest and principal
- Reflection on Credit Quality - purpose of Moody's ratings is to provide investors with a simple system of gradation by which future relative creditworthiness of securities may be gauged
- Consider “worst” possibilities in the “visible” future – not a reflection of statistical factors alone
- Opinion is derived at based on methodology, data input, assumptions, financial models and human capital
- Accordingly, credit ratings can be assigned to Governments, Banks, Corporates, State Owned Utilities, Project Finance Structures, Structured Finance Assets – in essence, anything with a predictable future cash flow
- Should not be used in isolation as the basis for investment decisions
- Do NOT constitute a recommendation to buy, hold or sell any debt security
- Obligations carrying the same rating are not claimed to be of absolutely equal credit quality. In a broad sense, they are alike in position
- The credit quality of most issuers and their obligations are not fixed and steady over a period of time, but tends to undergo change – upgrades and downgrades reflect these changes
- Credit Ratings are generally globally comparable, except in the case of National Scale Ratings

# Benefits of Moody's Ratings

- ❑ Broader access to the credit markets
- ❑ Strong Liquidity and Fair Pricing
  - Investor interest and participation
  - Key role in debt funding and debt capital markets
  - Corporate funding, bank funding, project and infrastructure finance
- ❑ Enhanced funding options and flexibility
- ❑ Independent benchmark - indicator of credit quality
- ❑ External Marketing Tool: affirming your credit openly demonstrates a willingness to be transparent
- ❑ Internal Management Tool: assist with financial & strategic planning
- ❑ Comparative Tool within the global sector and rating category
- ❑ Users: Regulators, Fixed income investors, Banks and other Lenders

**One of the world's foremost authorities in risk-sensitive markets**

Expertise by sector and asset class

Analytical value to the entire market

Effective in identifying credit risk

Seasoned analytical staff

Global scale and coverage

Highly Trusted Brand

# Our Value Proposition

## Moody's Rating Approach

- A single symbol conveying/reflecting opinion based on diverse information
- Transparent methodology provides a framework to begin analysis
- Qualitative elements crucial to result hence emphasis on interactive rating

## Moody's Market Leadership

- Market leader
- Highly experienced analytical team
- Longest presence in bond indices

## Moody's Investor Impact

- Broad based investor outreach
- Investor meetings
- Roundtables
- Credit briefings
- Conferences
- Published research

## Moody's Operational Excellence

- Enhanced rating transparency
- Regulatory compliant framework
- Regular updates on all new regulations
- Customer focused Commercial Group

# Moody's Rating Approach



## QUALITATIVE ANALYSIS

Management , strategic direction, financial flexibility

## QUANTITATIVE ANALYSIS

Financial statements, past performance, future projections

## MARKET POSITION

Organization's size and scope within Sector

## COMPETITIVE TRENDS IN SECTOR

Global / Domestic

## SECTORAL (INDUSTRY) ANALYSIS

Specific risk factors and financial metrics by industry

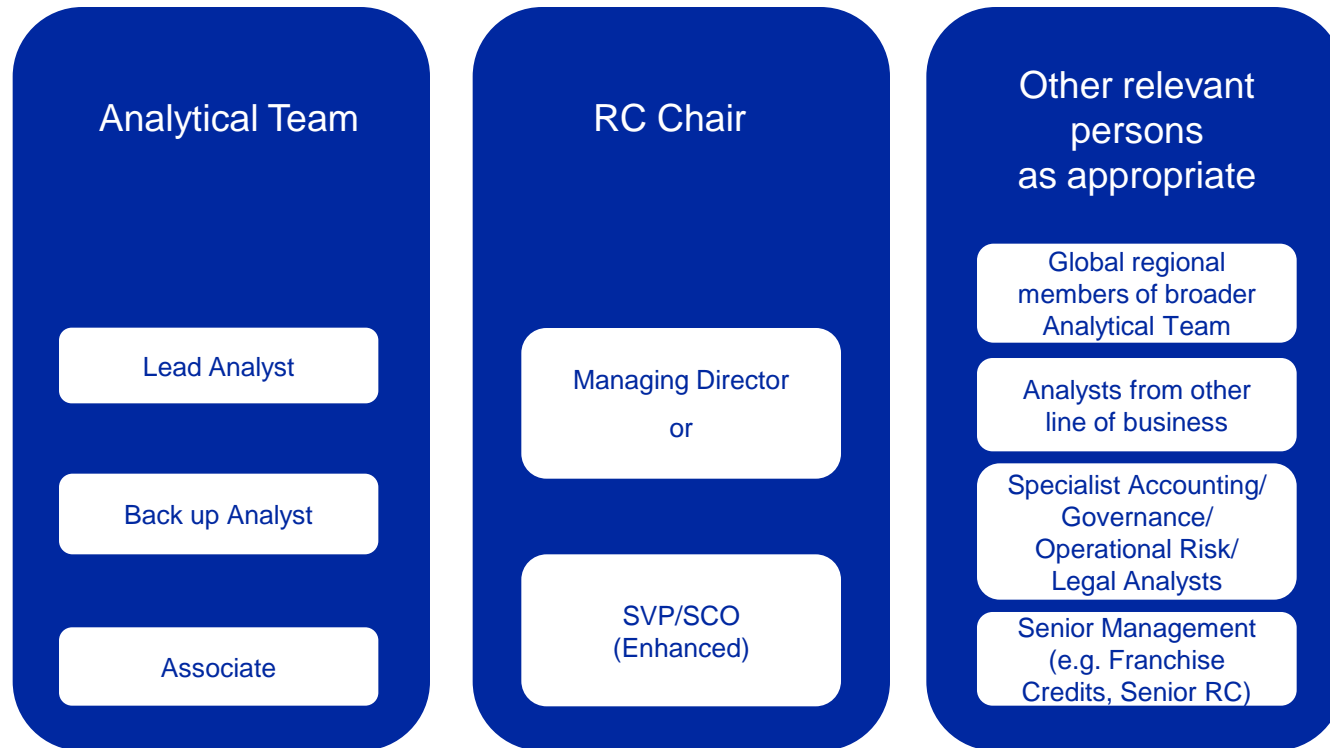
## SOVEREIGN MACRO-ECONOMIC ANALYSIS

Overall health of the country and economic environment

- ❑ A credit rating is an independent opinion that reflects an enormous amount of diverse information
- ❑ Credit quality embraces relative default probability, loss severity, “financial strength” and “transition risk”
- ❑ Bonds with the same credit rating, therefore, may be comparable with respect to overall credit quality but may differ with respect to specific credit quality characteristics



# Rating Concluded by Committee



**Attendance based on Knowledge, Relevance & Expertise**

# Moody's Rating Scale and Definitions

The purpose of Moody's ratings is to provide investors with a simple grading system by which relative creditworthiness of securities is determined

	Long-Term	Short-Term	
Investment-Grade	<b>Aaa</b>	<b>Prime-1</b>	
	<b>Aa1</b>		
	<b>Aa2</b> <b>Aa3</b>		
	<b>A1</b>	<b>Prime-2</b>	
	<b>A2</b>		
	<b>A3</b>		
	<b>Baa1</b>	<b>Prime-3</b>	
	<b>Baa2</b>		
	<b>Baa3</b>		
	Speculative-Grade	<b>Ba1</b>	<b>Not Prime</b>
		<b>Ba2</b>	
		<b>Ba3</b>	
<b>B1</b>			
<b>B2</b>			
<b>B3</b>			
<b>Caa1</b>			
<b>Caa2</b>			
<b>Caa3</b>			
<b>Ca</b>			
<b>C</b>			

- Aaa** Obligations rated Aaa are judged to be of the highest quality, with minimal credit risk.
- Aa** Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.
- A** Obligations rated A are considered upper-medium grade and are subject to low credit risk.
- Baa** Obligations rated Baa are subject to moderate credit risk. They are considered medium-grade and as such may possess certain speculative characteristics.
- Ba** Obligations rated Ba are judged to have speculative elements and are subject to substantial credit risk.
- B** Obligations rated B are considered speculative and are subject to high credit risk.
- Caa** Obligations rated Caa are judged to be of poor standing and are subject to very high credit risk.
- Ca** Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.
- C** Obligations rated C are the lowest rated class of bonds and are typically in default, with little prospect for recovery of principal or interest.

*Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.*

- P-1** Issuers (or supporting institutions) rated Prime-1 have a superior ability to repay short-term debt obligations.
- P-2** Issuers (or supporting institutions) rated Prime-2 have a strong ability to repay short-term debt obligations.
- P-3** Issuers (or supporting institutions) rated Prime-3 have an acceptable ability to repay short-term obligations.
- NP** Issuers (or supporting institutions) rated Not Prime do not fall within any of the Prime rating categories.

*Note: Canadian issuers rated P-1 or P-2 have their short-term ratings enhanced by the senior-most long-term rating of the issuer, its guarantor or support-provider.*

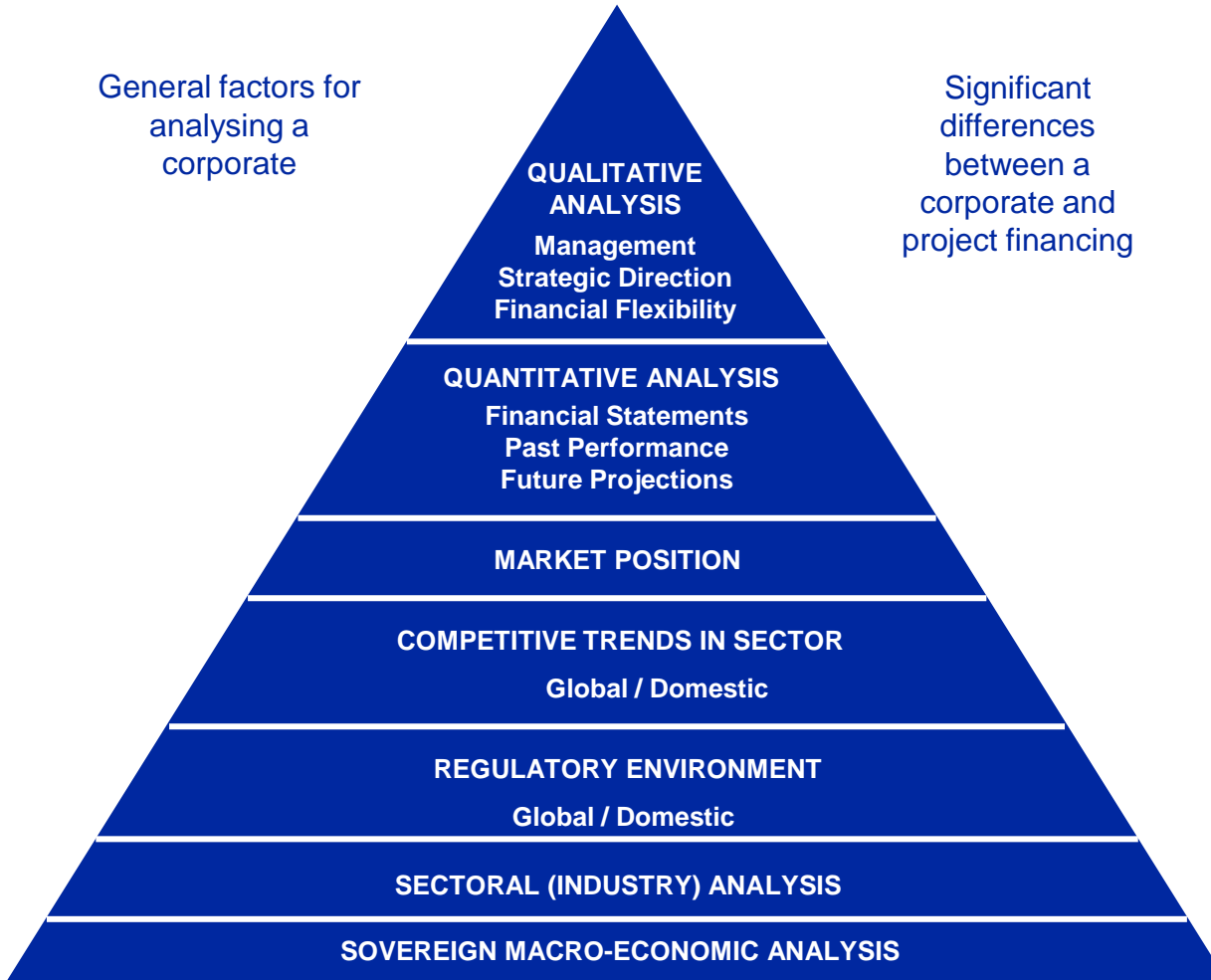
Source: Moody's Rating Symbols and Definitions

# Moody's Rating Products

	CFG	FIG	SFG	PPIF
<b>Public Ratings</b>				
Long Term – published ratings on Issuer and/or long term securities	✓	✓	✓	✓
Short Term – published ratings on short term notes/programs	✓	✓	✓	✓
<b>Private Ratings</b>				
Monitored – Confidential ratings that are maintained	✓	✓	✓	✓
Unmonitored – Confidential point-in-time ratings	✓	✓	✓	✓
<b>Unpublished Monitored Loan Rating (UMLR)</b>	✓	✓		✓
<b>Indicative Rating</b>				
Single scenario review for an Unrated Issuer	✓	✓		✓
<b>Indicative Assessment Service</b>				
Multiple scenario review for an Unrated Issuer	✓	✓		✓
<b>Ratings Assessment Service</b>				
Multiple scenario review for Rated Issuer	✓	✓	✓	✓
<b>Quality Assessment</b>				
Servicer & Originator			✓	
Asset Manager/Hedge Fund		✓		

# Credit Ratings – Corporates vs Project Finance

General factors for analysing a corporate



Significant differences between a corporate and project financing

## Corporate

- Creature of demand
- Few restrictions on scope of business
- Usually features operating assets
- Usually low level of protection to lenders
- Mix of amortising and bullet debt
- Reliance on corporate cash flows or value of assets to repay debt
- Multi assets/products

## Project Finance Structure

- Creature of contracts
- Special purpose entity with limited ability to change scope of business
- Usually features construction risk at inception
- Customary to have structural protection to lenders
- Prevalence of amortising long term debt
- Reliance on specific asset/reserve future cash flows to repay debt
- Single asset-product – finite life

# Credit Ratings on Toll Roads

## Moody's Methodology for rating Operational Toll Roads

- ❑ Moody's adopts a comprehensive and transparent methodology for the rating of debt obligations of toll roads
- ❑ Basis of key factors, each encompassing a set of sub-factors
- ❑ Measurement of key rating factors:
  - Identify and quantify specific features
  - 6 key rating factors
  - 18 sub-factors
  - Each sub-factor subject to 3 types of assessment:
    - Pure qualitative assessments
    - Qualitative assessments based on rankings estimated by Moody's or broad quantitative measured defined by Moody's
    - Pure quantitative assessments that can be measured by publicly available data – inputs e.g. into financial metrics and macroeconomic data
- ❑ For each of the 18 sub-factors, specific ranges of quantitative and qualitative features are defined for broad rating categories, i.e. Aaa, Aa, A, Baa, Ba, B etc
- ❑ And issuer's characteristics are scored for each sub-factor in the applicable category
- ❑ Credit ratings mapping grid is the basis for assigning ratings to Toll Roads based on an this established methodology

# Credit Ratings on Toll Roads - Rating Factors

Factors	Sub-Factors	Weighting
<b>Asset Type</b> (20% weighting)	<ul style="list-style-type: none"> <li>• Asset features</li> <li>• Competing routes</li> </ul>	<ul style="list-style-type: none"> <li>• 10.00%</li> <li>• 10.00%</li> </ul>
<b>Fundamentals of Service Area</b> (10% weighting)	<ul style="list-style-type: none"> <li>• Robustness and Diversity of Service Area</li> <li>• GDP/Capita in Service Area</li> </ul>	<ul style="list-style-type: none"> <li>• 5.00%</li> <li>• 5.00%</li> </ul>
<b>Traffic Profile</b> (10% weighting)	<ul style="list-style-type: none"> <li>• User profile</li> <li>• Track Record and Stability of Tolloed Traffic</li> <li>• Annual Average Daily Traffic per Lane Km</li> </ul>	<ul style="list-style-type: none"> <li>• 3.33%</li> <li>• 3.33%</li> <li>• 3.33%</li> </ul>
<b>Concession and Regulatory Framework</b> (10% weighting)	<ul style="list-style-type: none"> <li>• Risk of Adverse Changes to Concession T's &amp; C's</li> <li>• Ability to Increase Tariffs</li> <li>• Protection against Events outside Concessionaire's Control</li> </ul>	<ul style="list-style-type: none"> <li>• 3.33%</li> <li>• 3.33%</li> <li>• 3.33%</li> </ul>
<b>Stability of Business Model and Financial Structure</b> (10% weighting)	<ul style="list-style-type: none"> <li>• Ability and Willingness to Pursue Opportunistic Corporate Activity</li> <li>• Ability and Willingness to Increase Leverage</li> <li>• Targeted Proportion of Revenues outside Core Concession</li> </ul>	<ul style="list-style-type: none"> <li>• 3.33%</li> <li>• 3.33%</li> <li>• 3.33%</li> </ul>
<b>Key Credit Metrics (Historical and Projected)</b> (40% weighting)	<ul style="list-style-type: none"> <li>• Cash Interest Coverage</li> <li>• FFO/ Debt</li> <li>• Moody's Debt Service Coverage Ratio</li> <li>• RCF / Capex</li> <li>• Debt / PV Base Cash Flows or Concession Life Coverage Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• 8.00%</li> <li>• 8.00%</li> <li>• 8.00%</li> <li>• 8.00%</li> <li>• 8.00%</li> </ul>
<b><u>TOTAL</u></b>		• <b><u>100.00%</u></b>

• Above constitutes primary weighting of Key factors and sub-factors – analysis leads to a rating indicated outcome on each factor, e.g. Aaa, Aa, A, Baa, Ba etc

• Based on the above, a further weighting is applied by rating category (Aaa, Aa, A, Baa, Ba etc)

# Credit Ratings on Toll Roads - Rating Factors

Factor 1: Asset Type Weighting: 20% <span style="float: right;">①</span>								
	Aaa	Aa	A	Baa	Ba	B	Caa	Sub-weighting Factor
Asset Features	Large network of major large trunk routes	Essential transport link; can be single or small number of large trunk or urban routes	Essential transport link; can be essential but small trunk or urban route (e.g. tunnel or bridge)	Single asset or small number of roads in a small economic service area or niche market	Single asset or small number of roads; highly exposed to local economy	Small single asset, non-essential in a deteriorating market	Small single asset in an unproven or extremely weak market	50.00%
Competing Routes	No current or potential competing routes (multi-modal or other roads)	Well-established and stable competitive environment; no changes to key modes for the foreseeable future	Competition may intensify over long term; gradual expected impact on traffic, cumulatively <10% over 10 years	Competition may intensify over long term; gradual expected impact on traffic, cumulatively 10-15% over 10 years	Changing competitive environment; new routes will likely impact traffic when opened by 10-20%	Rapidly changing competitive environment; significant (>20%) negative impact on traffic expected	Competitive environment is eroding current traffic trends; expected to deteriorate rapidly	50.00%

Factor 6: Key Credit Metrics (Historical & Projected) Weighting: 40% <span style="float: right;">①</span>								
	Aaa	Aa	A	Baa	Ba	B	Caa	Sub-weighting Factor
Cash Interest Coverage	>10.0x	7.0-10x	4.5-7.0x	2.5-4.5x	1.8-2.5x	1.5-1.8x	<1.5x	20.00%
FFO / Debt	>40%	25-40%	14-25%	8-14%	6-8%	4-6%	<4%	20.00%
Moody's Debt Service Coverage Ratio	>8.0x	5.0-8.0x	3.0-5.0x	1.8-3.0x	1.3-1.8x	1.0-1.3x	<1.0x	20.00%
RCF / Capex	>3.5x	3.5-2.5x	1.5-2.5x	1.0-1.5x	0.5-1.0x	<0.5x	<0.5x	20.00%
Debt / PV Base Cash Flows or Concession Life Coverage Ratio	<10%	10-20%	20-30%	30-40%	40-60%	60-80%	>80%	20.00%

Source: Rating Methodology, Operational Toll Roads, December 2006

# Credit Ratings on Toll Roads – The Outcome

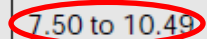
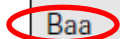
Factors	Sub-Factors	Weighting
Asset Type	Asset Features	10.00%
	Competing Routes	10.00%
Fundamentals of Service Area	Robustness and Diversity of Service Area	5.00%
	GDP / Capita in Service Area	5.00%
Traffic Profile	User Profile	3.33%
	Track Record and Stability of Tolloed Traffic	3.33%
	Annual Average Daily Traffic per Lane Km	3.33%
Concession and Regulatory Framework	Risk of Adverse Changes to Concession Terms and Conditions	3.33%
	Ability to Increase Tariffs	3.33%
	Protection against Events outside the Concessionaire's Control	3.33%
Stability of Business Model and Financial Structure	Ability and Willingness to Pursue Opportunistic Corporate Activity	3.33%
	Ability and Willingness to Increase Leverage	3.33%
	Targeted Proportion of Revenues outside Core Concession	3.33%
Key Credit Metrics (Historical & Projected)	Cash Interest Coverage	8.00%
	FFO / Debt	8.00%
	Moody's Debt Service Coverage Ratio	8.00%
	RCF / Capex	8.00%
	Debt / PV Base Cash Flows or Concession Life Coverage Ratio	8.00%



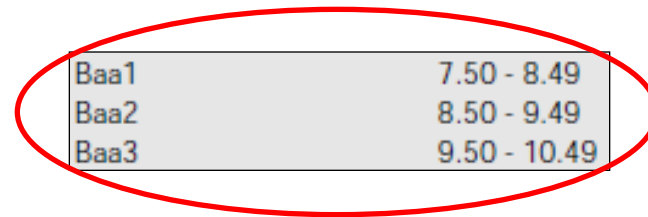
Rating Category	Aaa	Aa	A	Baa	Ba	B	Caa
Weighting	1	1	1	1.15	2	3	5



Indicated Rating	Overall Score
Aaa	1.49 or lower
Aa	1.5 to 4.49
A	4.50 to 7.49
Baa	7.50 to 10.49
Ba	10.50 to 13.49
B	13.50 to 16.49
Caa	16.50 to 18.00



Baa1	7.50 - 8.49
Baa2	8.50 - 9.49
Baa3	9.50 - 10.49





# Credit Ratings on Toll Roads - Example

Toll Roads						Asset Type		Fundamentals of Service Area		Traffic Profile		
	Negative Outlier	Positive Outlier				10.00%	10.00%	5.00%	5.00%	3.33%	3.33%	3.33%
Toll Roads	Current Rating	Outlook	Factor-Indicated Rating	Additional Uplift	Final Indicated Rating	Asset Features	Competing Routes	Robustness & Diversity	GDP / Capita	User Profile	Track Record	AADT per Lane Km
<b>Asia</b>												
Chinese Future Corporation	Ba2	stable	Ba2	0	Ba2	Baa	Ba	Baa	B	Baa	Baa	Ba
Road King Infrastructure Limited	Ba1	stable	Ba1	0	Ba1	Baa	Ba	A	Caa	Baa	A	Ba
<b>Australia</b>												
Airport Motorway Trust	A3	stable	A2	0	A2	A	Aa	Aa	Aaa	Aa	A	Aa
Interlink Roads Pty Ltd	A2	stable	A2	0	A2	A	Aa	Aa	Aaa	Aa	Aa	Aa
Transurban Finance Company Pty Ltd	A3	negative	Baa1	0	Baa1	Aa	Aa	A	Aa	Aa	A	Aa
<b>Europe</b>												
Autostrade S.p.A.	A3	stable	A3	0	A3	Aaa	Aa	Aa	Aaa	A	Aaa	Aa
Brisa Auto-Estradas de Portugal S.A.	A3	stable	A3	0	A3	Aa	Aa	A	Aa	Baa	Aa	A
<b>Latin America</b>												
Autopista del Mayab	Ba1	stable	Ba3	+2	Ba1	Aa	Aa	Baa	Baa	A	A	A
Autopista del Sol	Baa2	stable	Baa3	+1	Baa2	A	Aa	A	A	Baa	A	Baa
Autopista Monterrey-Cadereyta	Baa3	stable	Baa3	+1	Baa2	Aa	Aa	Baa	Baa	Aa	Aa	Aa
BG Trust, Inc. (Corredor Sur - ICA Panama)	Baa2	stable	Baa3	+1	Baa2	A	Aa	A	Baa	A	A	Baa
Carretera de Cuota Constit. Y Ref. La Venta (MexTol)	Baa3	stable	Baa3	+1	Baa2	Aa	Aa	Baa	Baa	Aa	Aa	A
Libramiento de Matehuala Toll Road Mexico	Baa3	stable	Ba1	+1	Baa3	A	A	Baa	Baa	Baa	Baa	Baa
Rutas del Pacifico	Baa2	stable	Baa2	+1	Baa1	A	A	A	A	Baa	A	Baa
Sociedad Concesionaria Costanera Norte S.A.	Baa2	stable	Baa2	+1	Baa1	Aa	Aa	A	A	Aaa	Baa	Baa
Sociedad Concesionaria Vespucio Norte Express S.A.	Baa3	stable	Baa2	+1	Baa1	A	A	A	A	Baa	Baa	Baa
Talca Chillan Sociedad Concesionaria	Baa2	stable	Baa2	+1	Baa1	A	A	A	A	Baa	A	Ba
<b>North America</b>												
Toll Road Investors Partnership II, L.P. (Dulles Greenway)	Baa3	stable	Ba2	+2	Baa3	Baa	Aa	Aaa	Aaa	Aaa	A	Aa

# Conclusion

- ❑ Moody's has established itself as a leading independent provider of credit rating opinions and related information for over 100 years
- ❑ Credit ratings continue to play a key role in the local and global debt capital markets
- ❑ It is vital that the use and application of Moody's credit ratings are well understood
- ❑ Moody's adopts a thorough interactive approach during the credit rating process
  - Considers various sets of qualitative and quantitative data and inputs
  - Transparent process key to the delivery of a credit rating outcome
- ❑ Moody's employs a specific credit rating methodology to analyze the credit quality of and assign credit ratings to Operational Toll Roads
- ❑ Infrastructure development and financing remain key themes in South Africa and Sub-Saharan Africa
- ❑ Roles of local market vis-à-vis international market contribution to funding becoming more important than ever
- ❑ Credit ratings and capital market funding are expected to play an increasingly important role in infrastructure funding across Africa over the next decade or two

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