

US Local Government General Obligation Debt Rating Methodology

Agenda

1. US local government general obligation debt rating methodology
2. Importance of strong fiscal management

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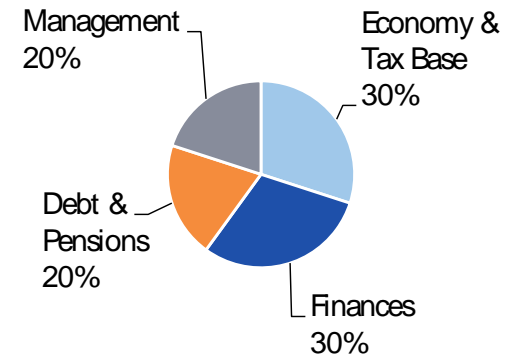
US Local Government General Obligation Debt Rating Methodology

Moody's Local Govt. General Obligation (GO) Debt Rating Methodology

Rating analysis includes

- » Rating is decided based on individual credit review
- » Rating factors fall into four major categories
- » Both qualitative and quantitative analysis is involved
- » Legal structure of security also plays a role in rating

Four Primary Credit Factors



General Obligation Scorecard

Purpose and use of the Scorecard:

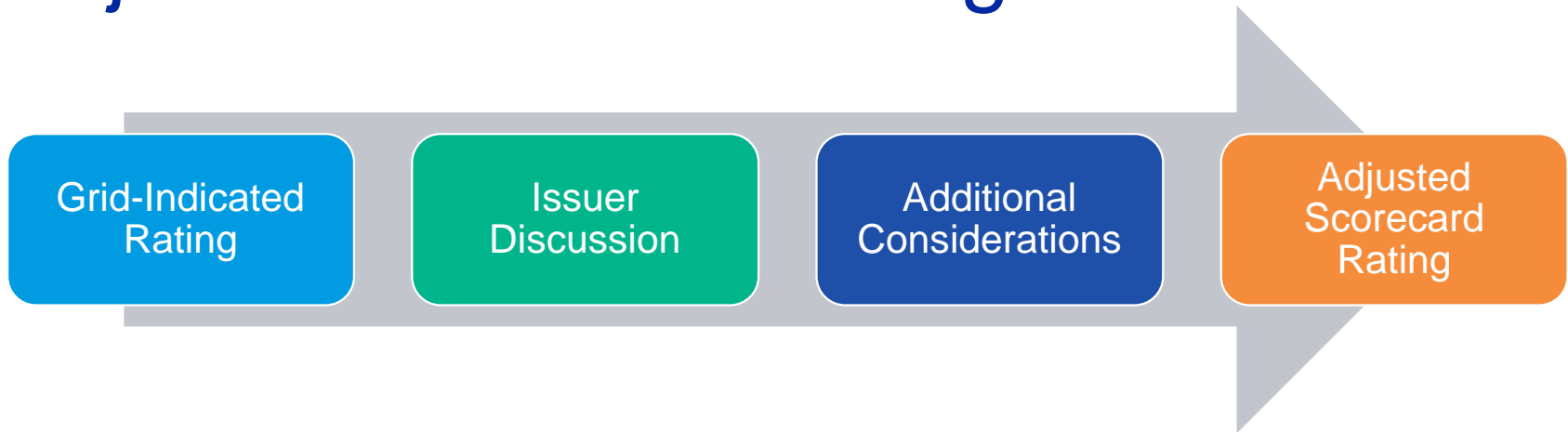
- » The scorecard acts as a starting point for a more thorough and individualistic analysis
- » Captures the key considerations that correspond to particular rating categories
- » Not an exhaustive list of factors that we consider in every local government rating
- » Each subfactor is a quantitative metric that are scored an initial grid

Moody's Local Govt. General Obligation (GO) Debt Rating Methodology

Factors & Sub-Factors	Weights
Factor 1: Economy/Tax Base	30%
Full Value (market value of taxable property)	10%
Full Value per Capita	10%
Median Family Income	10%
Factor 2: Finances	30%
Fund Balance as % of Operating Revenue	10%
5-Year Dollar Change in Fund Balance as % of Revenues	5%
Cash Balance as % of Revenues	10%
5-Year Dollar Change in Cash Balance as % of Revenues	5%
Factor 3: Management	20%
Institutional Framework	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	10%
Factor 4: Debt/Pensions	20%
Net Direct Debt / Full Value	5%
Net Direct Debt / Operating Revenue	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	5%

» **Grid Indicated Rating:**
The weighted average of quantitative scores will determine a raw score that maps to Moody's rating scale

Additional information can lead to adjusted scorecard ratings



- » Issuer discussions will inform whether there are any additional considerations → the adjusted scorecard rating
- » Rating committee ultimately determines the adjusted “below-the-line adjustments” based on information provided by the issuer
- » The final rating may differ from the adjusted scorecard rating

Scorecard Factor 1: Economy/Tax Base – 30%

	<i>Very Strong</i>	<i>Strong</i>	<i>Moderate</i>	<i>Weak</i>	<i>Poor</i>	<i>Very Poor</i>	
	Aaa	Aa	A	Baa	Ba	B & Below	Weight
ECONOMY/TAX BASE (30%)							
Tax Base Size: Full Value	> \$12B	\$12B ≥ n > \$1.4B	\$1.4B ≥ n > \$240M	\$240M ≥ n > \$120M	\$120M ≥ n > \$60M	≤ \$60M	10%
Full Value Per Capita	> \$150,000	\$150,000 ≥ n > \$65,000	\$65,000 ≥ n > \$35,000	\$35,000 ≥ n > \$20,000	\$20,000 ≥ n > \$10,000	≤ \$10,000	10%
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median	10%

Possible adjustments:

- » Up – Presence of university, state capital
- » Up – Community is a regional economic center
- » Up – Exceptionally high wealth levels
- » Up – Expected future development with specific construction completion dates and projected increases in property taxes.
- » Down – Expected decline in assessed valuation due to corporate closure or tax appeals
- » Down – Economic concentration
- » Down -- Outsized unemployment or poverty levels

Scorecard Factor 2: Finances – 30%

	<i>Very Strong</i>	<i>Strong</i>	<i>Moderate</i>	<i>Weak</i>	<i>Poor</i>	<i>Very Poor</i>	
	Aaa	Aa	A	Baa	Ba	B & Below	Weight
FINANCES (30%)							
Fund Balance as % of Revenues	➤ 30% > 25% for School Districts (SD)	30% ≥ n > 15% 25% ≥ n > 10% for SD	15% ≥ n > 5% 10% ≥ n > 2.5% for SD	5% ≥ n > 0% 2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD	10%
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18.0%	5%
Cash Balance as % of Revenues	> 25% > 10% for School Districts (SD)	25% ≥ n > 10% 10% ≥ n > 5% for SD	10% ≥ n > 5% 5% ≥ n > 2.5% for SD	5.0% ≥ n > 0% 2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD	10%
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10.0%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%

Possible adjustments:

- » Up – Additional, borrowable liquidity/reserves outside of the main operating fund(s)
- » Down – Reliance on uncertain state aid or other economically sensitive revenue streams
- » Down – Enterprise risk

Scorecard Factor 3: Debt/Pensions – 20%

	<i>Very Strong</i>	<i>Strong</i>	<i>Moderate</i>	<i>Weak</i>	<i>Poor</i>	<i>Very Poor</i>	
	Aaa	Aa	A	Baa	Ba	B & Below	Weight
DEBT/PENSIONS (20%)							
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	> 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	> 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	> 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	> 8.4x	5%

Possible adjustments:

- » Up/Down – Unusually strong/weak security features
- » Down - Unusual risk posed by debt structure
- » Down – Large OPEB liability
- » Down – History of missed debt service payments
- » Up/Down – Unusually high or low fixed costs as a % expenditures

Scorecard Factor 4: Management – 20%

	<i>Very Strong</i>	<i>Strong</i>	<i>Moderate</i>	<i>Weak</i>	<i>Poor</i>	<i>Very Poor</i>	
	Aaa	Aa	A	Baa	Ba	B & Below	Weight
MANAGEMENT (20%)							
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x	10%

Possible adjustments:

- » Down – Reliance on cash flow borrowing
- » Up/down – State oversight or support
- » Up – Ability and willingness to make adjustments beyond what is captured in grid
- » Up – Thoughtful plan for restoring structural operating balance and/or replenishing reserves
- » Up – Active monitoring of budget performance
- » Up – Formal financial policies
- » Up – History of conservative budgeting

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Importance of strong
fiscal management

Management: Plans and policies to ensure financial flexibility is maintained

Formal policies

- » Fund balance target policy
 - Fund balance will be X% of budget
- » Budgeting policies
 - Timeline for budget process
- » Debt affordability policies
 - Debt as a % of tax base or annual revenues

Multi-year planning

- » Multi-year forecast of operating revenues and expenditures
- » Multi-year capital improvement plan
- » Planning for a range of scenarios

Policies and plans provide assurance that current financial position will be maintained or even improved

Management: Conservative budgeting

Property taxes/assessments

- » Willingness to raise property tax levy
- » Conservative assumptions for uncollected taxes
- » Reserve for tax appeals
- » Using general economic factors to project revenues (building permit activity, vacancy rates)

Conservative estimates for vulnerable revenues

- » Hotel/motel tax, fees
- » Building permit fees, interest income

State aid

- » Less dependence on state aid
- » Flexibility to make midyear adjustments

Expenditures

- » Strong understanding of budget assumptions
- » Fluency with expenditure flexibility
- » Predictability of contractual agreements helps

Red flags of aggressive budgeting

- » History of budget one-shots
- » Increased cash flow borrowing

Credit strengths and challenges

Credit strengths

- » Maintenance or improvement in Excess & Deficiency funds
- » Stabilization funds
- » Positive net funding of School Choice revolving fund
- » Positive working relationship with member towns including on time budget approval and adoption
- » History/trend of voter approved debt exclusions to Proposition 2 ½
- » Establishment and nominal funding of OPEB trust

Credit challenges

- » Declining enrollment trend
- » Increasing or large amounts of E&D funds used to balance budget
- » Negative net funding of School Choice revolving fund
- » Difficulty in adopting and approving budgets with member towns
- » Failure to be proactive in addressing operating risks
- » Negotiating labor contracts that are in-line with revenue and expenditure growth trends

Massachusetts RSD median rating is Aa3

Key metrics for 34 rated RSDs as of October 2017

Tax Base / Economy metrics	Median
Total Equalized (Full) Value (\$000)	3,013,249
Equalized (Full) Value Per Capita (\$)	129,574
Per Capita Income as % of U.S. (2010 Census)	135
Median Family Income as % of U.S. (2010 Census)	147

Financial metrics	Median
Total Operating Funds Revenues (\$000)	28,011
Available Op Fund Balance as % of Revenue	6.5
Operating Net Cash as % of Operating Revenues	11.8
Unassigned Fund Balance as % of Revenue (Operating Funds)	3.9

Debt and Pension metrics	Median
Direct Net Debt Outstanding (\$000)	12,818
Direct Net Debt as % of Full Value	0.3
Direct Net Debt Per Capita (\$)	567
Debt Service as % of Operating Expenditures	3.4
Payout, 10 Years, All Tax-Supported Debt (%)	87.5
ANPL - Net of Support (\$000)	15,078
(ANPL - net of support) / Operating Revenues	0.4
(ANPL - net of support) / Full Value (%)	0.5



MOODY'S
INVESTORS SERVICE

Nicholas Lehman
One International Place
100 Oliver St., Suite 1400
Boston, MA 02110
Nicholas.Lehman@moodys.com
617-535-7694

moodys.com

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